AIR CONDITIONERS CITY MULTI

DATA BOOK

CITY MULTI

CE TÜV CERT DIN ISO 9001 / EN 29001 RWTÜV GS geprüfte Sicherheit

2001

MITSUBISHI ELECTRIC EUROPE B.V.
AIR CONDITIONING

CITY MULTI

Ⅰ Outdoor Unit P. 4 - 194

Introduction 4

R407C refrigerant & CE unit

Y series	PUHY-P200·250YMF-C	5
	PUHY-P400·500YMF-B	19
Super Y series	PUHY-P600·650·700·750YSMF-B	33
R2 series	PURY-P200·250YMF-C	55
WR2 series	PQRY-P200·250YMF-B	69
Cooling only	PUY-P200·250YMF-C	95

R22 refrigerant & CE unit

Y series	PUMY-125YMA	107
	PUHY-200·250YMF-C	119
	PUHY-400·500YMF-B	133
Super Y series	PUHY-600·650·700·750YSMF-B	147
R2 series	PURY-200·250YMF-C	169
Cooling only	PUY-200·250YMF-C	183

Ⅱ Indoor Unit P. 196 - 394

CE indoor unit

Introduction 196

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		PEFY-P-VMH-A PEFY-P-VMM-A	229
Ceiling mounted built-in		PDFY-P-VM-A	257
Floor standing	Exposed	PFFY-P-VLEM-A	281
	Concealed	PFFY-P-VLRM-A	
Cassette ceiling	1-way flow	PMFY-P-VBM-A	295
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	4-way flow	PLFY-P-VKM-A/VAM-A	327
Wall mounted		PKFY-P-VAM-A/VGM-A	343
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Function table of controller 396

Local remote controller

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System controller

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CITY MULTI OUTDOOR UNIT

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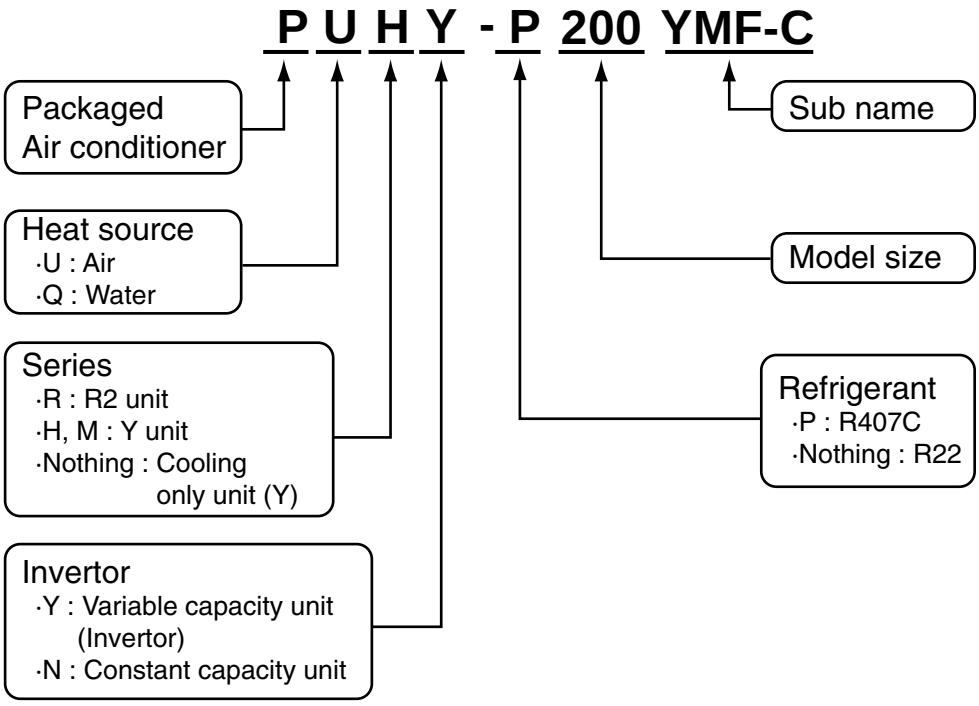
Introduction

CITY MULTI OUTDOOR UNITS

Standard	Refrigerant	Series	Model Name	125 (5HP)	200 (8HP)	250 (10HP)	315 (13HP)	400 (16HP)	500 (20HP)	600 (24HP)	650 (26HP)	700 (28HP)	750 (30HP)
CE	R407C	Y series	PUHY-P-YMF-C		●	●							
			PUHY-P-YMF-B					●	●				
		Super Y series	PUHY-P-YSMF-B							●	●	●	●
		R2 series	PURY-P-YMF-C		●	●							
		WR2 series	PQRY-P-YMF-B		●	●							
		Cooling Only	PUY-P-YMF-C		●	●							
	R22	Y series	PUMY-YMA	●									
			PUHY-YMF-C		●	●							
			PUHY-YMF-B					●	●				
		Super Y series	PUHY-YSMF-B							●	●	●	●
		R2 series	PURY-YMF-C		●	●							
		Cooling Only	PUY-YMF-C		●	●							

Meaning of model name



PUHY-P200YMF-C, PUHY-P250YMF-C

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1. Specifications

Model name			PUHY-P200YMF-C	
			Cooling	Heating
Capacity		kW	∗1 22.4	25.0
		kcal/h	∗2 20,000	-
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	8.64	7.98
Current		A	14.5/13.8/13.3	13.4/12.7/12.3
Fan	Type × Quantity		Propeller fan × 1	
	Airflow rate	m^3/min	185	
	Motor output	kW	0.38	
Compressor	Type		Hermetic	
	Motor output	kW	5.5	
	Crankcase heater	kW	0.062(240V)	
Refrigerant / Lubricant			R407C/MEL32	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
External dimension		mm	1715(H)×990(W)×840(L)	
Protection devices	High pressure protection		2.94MPa	
	Compressor / Fan		Over current protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	
Refrigerant piping diameter	Liquid / Gas		ø12.7 flare /ø25.4 Flange	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 250 / 1 ~ 13	
Noise level		dB<A>	56	
Net weight		kg	225	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (0˚CDB ~ 43˚CDB with outdoor unit at lower position)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB ~ 15.5˚CWB

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

∗1 **Cooling** Indoor : 27˚CDB/19˚CWB Outdoor : 35˚CDB
Heating Indoor : 20˚CDB Outdoor : 7˚CDB/6˚CWB
Pipe length : 7.5m Height difference : 0m

∗2 **Cooling** Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB
Pipe length : 5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

Model name			PUHY-P250YMF-C	
			Cooling	Heating
Capacity		kW	∗1 28.0	31.5
		kcal/h	∗2 25,000	-
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	10.89	10.15
Current		A	18.3/17.4/16.8	17.1/16.2/15.6
Fan	Type × Quantity		Propeller fan × 1	
	Airflow rate	m^3/min	185	
	Motor output	kW	0.38	
Compressor	Type		Hermetic	
	Motor output	kW	7.5	
	Crankcase heater	kW	0.062(240V)	
Refrigerant / Lubricant			R407C/Polyol ester oil (POE)	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
External dimension		mm	1715(H)×990(W)×840(L)	
Protection devices	High pressure protection		2.94MPa	
	Compressor / Fan		Over current protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	
Refrigerant piping diameter	Liquid / Gas		ø12.7 flare /ø28.58 Flange	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 250 / 1 ~ 16	
Noise level		dB<A>	57	
Net weight		kg	231	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (0˚CDB ~ 43˚CDB with outdoor unit at lower position)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB~15.5˚CWB

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

∗1 **Cooling** Indoor : 27˚CDB/19˚CWB Outdoor : 35˚CDB
Heating Indoor : 20˚CDB Outdoor : 7˚CDB/6˚CWB
Pipe length : 7.5m Height difference : 0m

∗2 **Cooling** Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB
Pipe length : 5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

2. Capacity tables

2-1. Correction by temperature

Cooling

• Standard Specifications

		PUHY-P200YMF-C	PUHY-P250YMF-C
Capacity	kW	22.4	28.0
Input	kW	8.64	10.89
Source	V	380/400/415	
Current	A	14.5/13.8/13.3	18.3/17.4/16.8

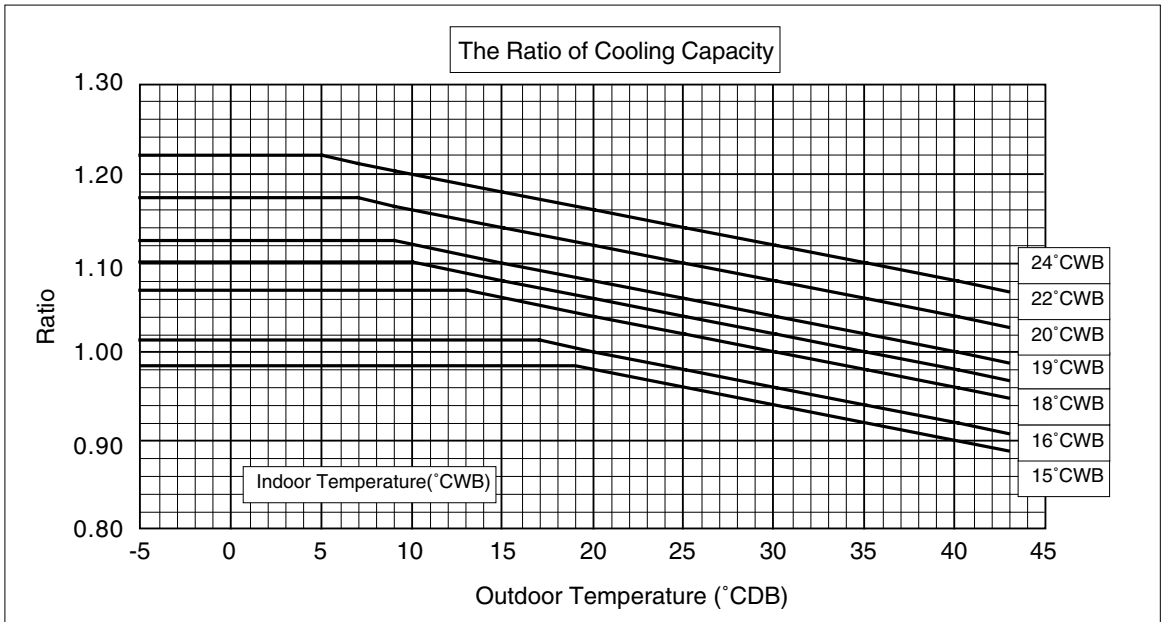
• Calculation

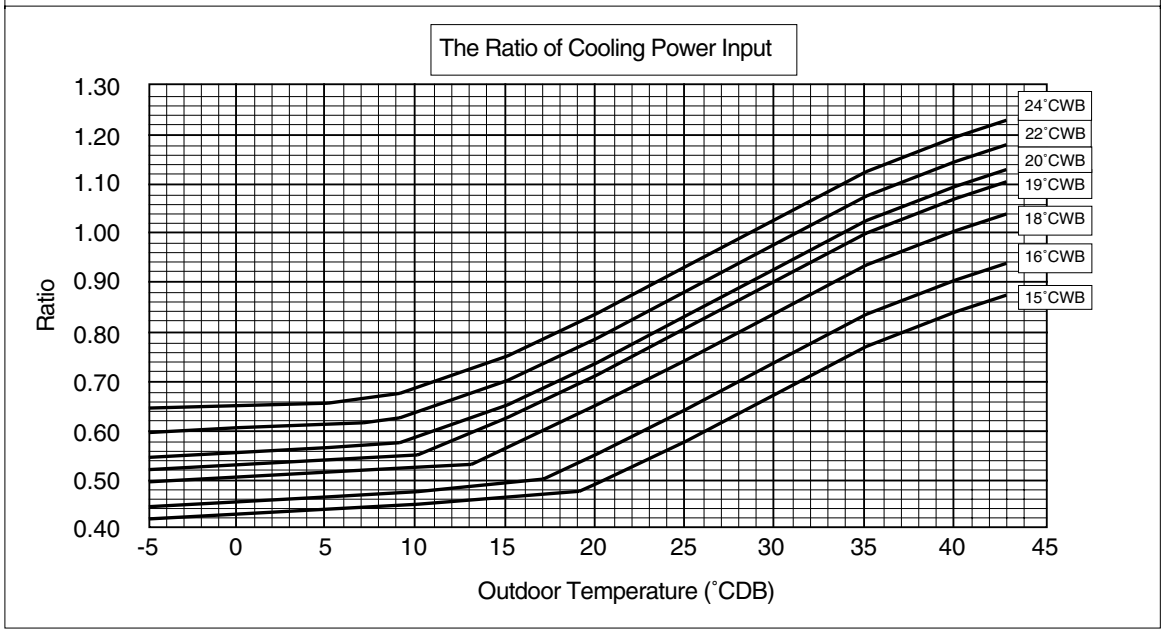
Capacity' = Capacity × Ratio

Input' = Input × Ratio

$$\text{Current'} = \frac{\text{Input'} \times 1000}{\sqrt{3} \times \text{Source} \times 0.90}$$

※ Capacity', Input', Current' } After correction





Heating

• Standard Specifications

		PUHY-P200YMF-C	PUHY-P250YMF-C
Capacity	kW	25.0	31.5
Input	kW	7.89	10.15
Source	V	380/400/415	
Current	A	13.4/12.7/12.3	17.1/16.2/15.6

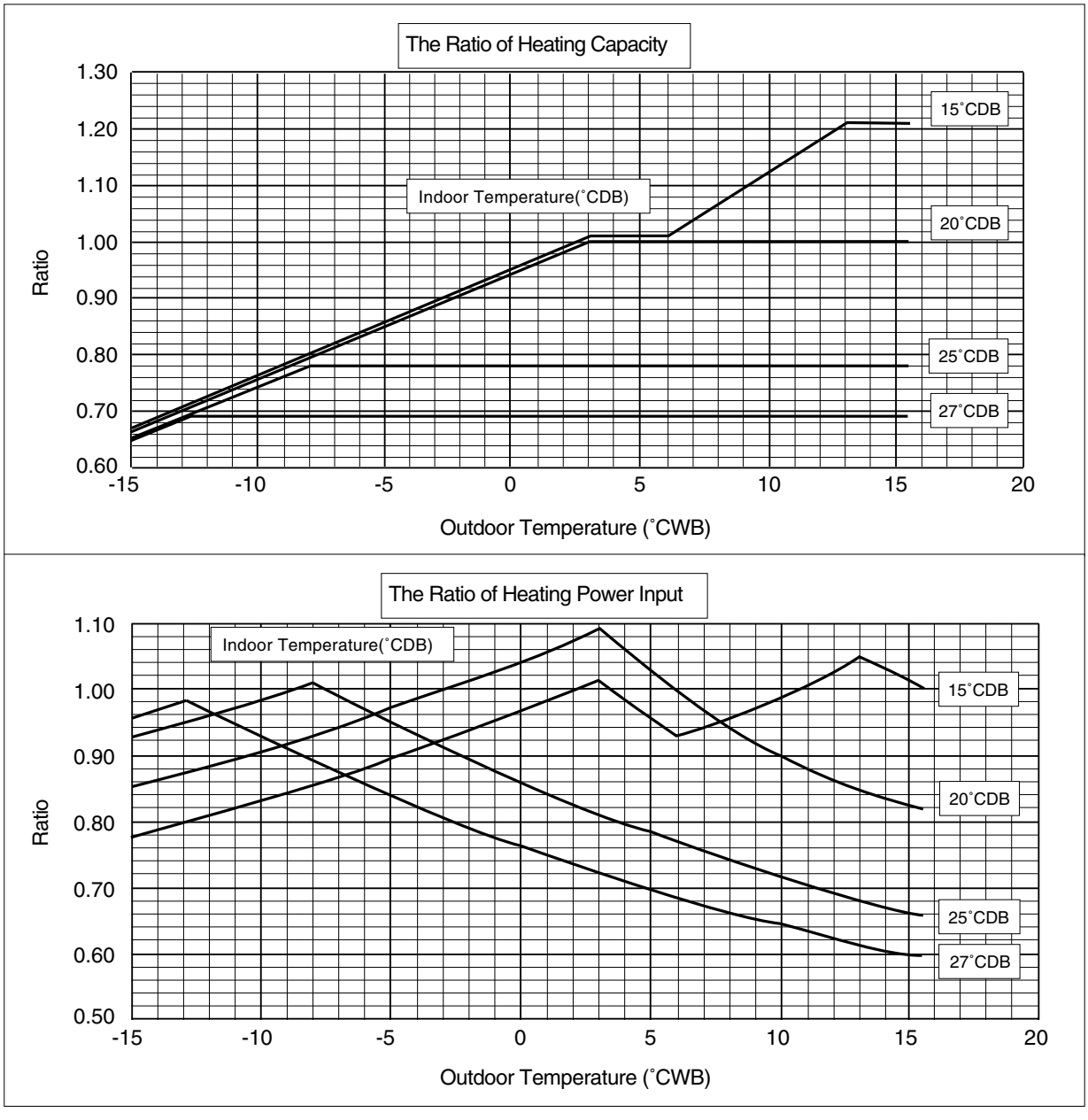
• Calculation

$$\text{Capacity}' = \text{Capacity} \times \text{Ratio}$$

$$\text{Input}' = \text{Input} \times \text{Ratio}$$

$$\text{Current}' = \frac{\text{Input}' \times 1000}{\sqrt{3} \times \text{Source} \times 0.90}$$

※Capacity'
Input'
Current'
} After correction

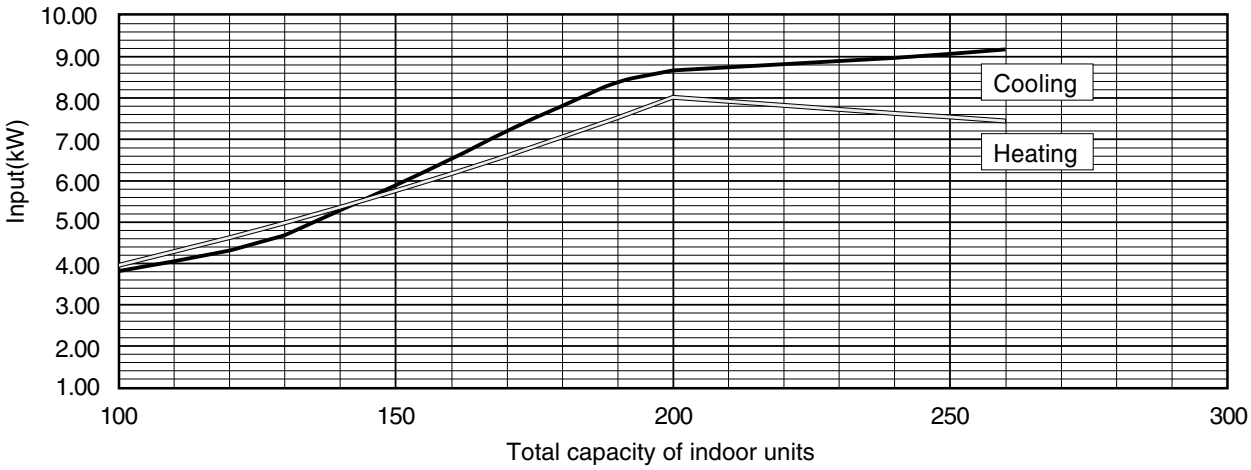


2-2. Correction by total indoor

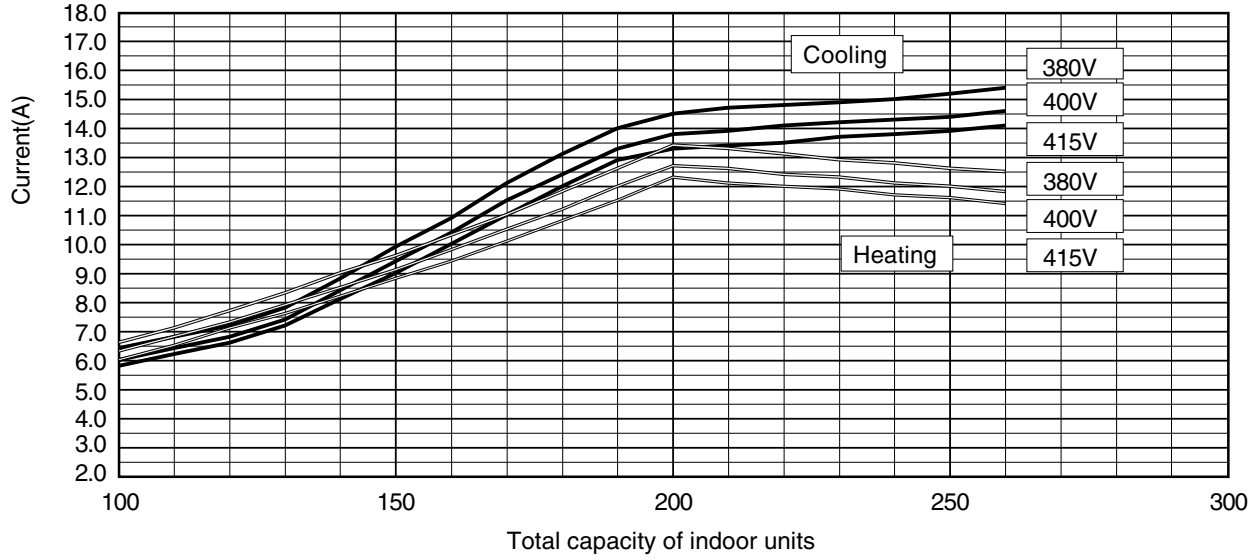
PUHY-P200YMF-C

1) Capacity

2) Input

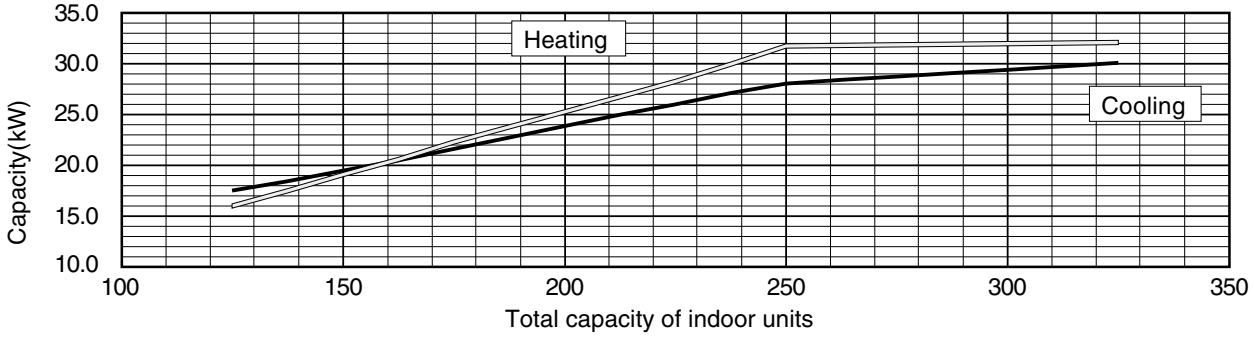


3) Current

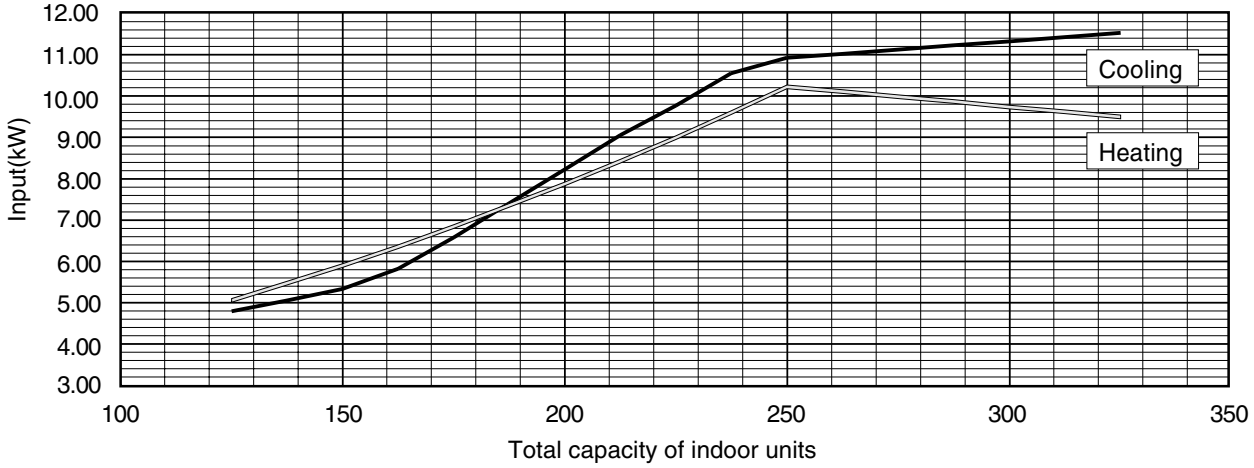


PUHY-P250YMF-C

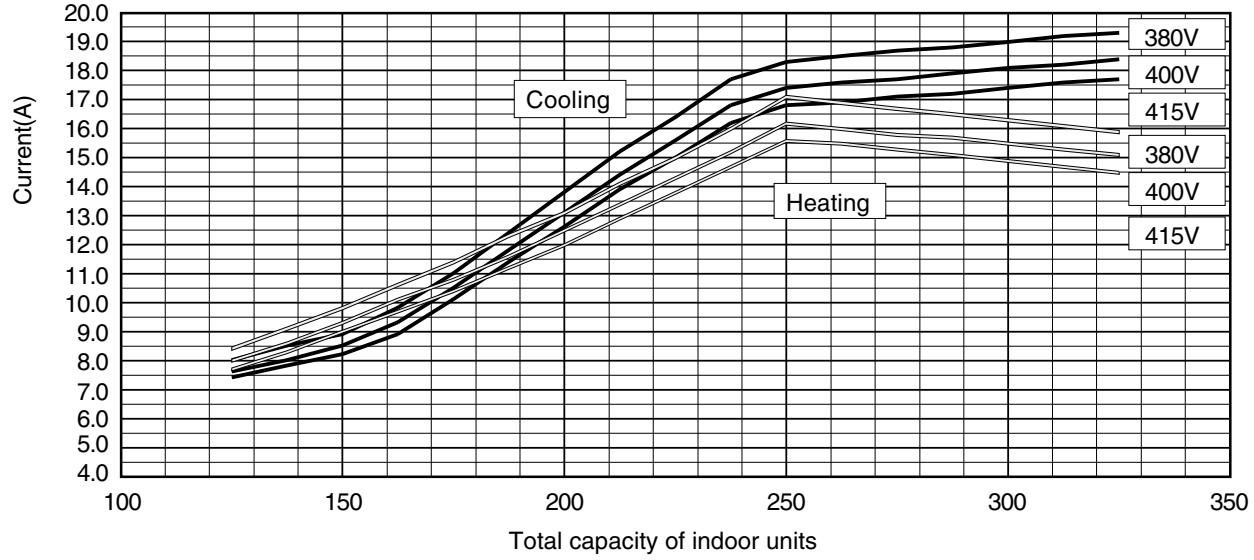
1) Capacity



2) Input



3) Current

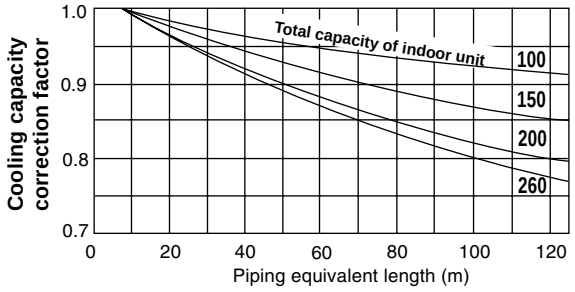


2-3 Correction by refrigerant piping length

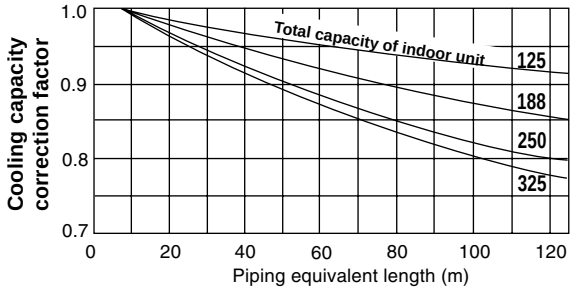
To obtain a decrease in cooling/heating capacity due to refrigerant piping extension, multiply by the capacity correction factor based on the refrigerant piping equivalent length in the table below.

• Cooling capacity correction

PUHY-P200YMF-C

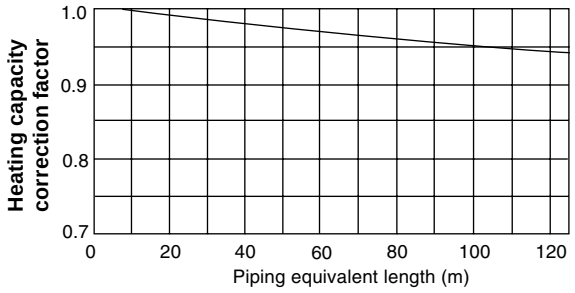


PUHY-P250YMF-C

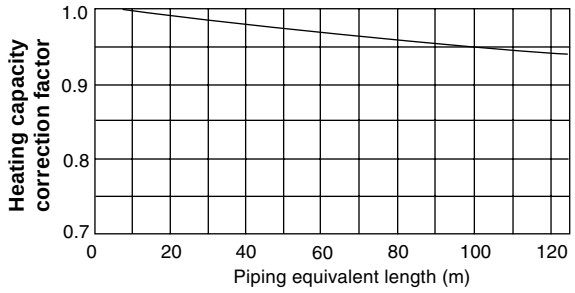


• Heating capacity correction

PUHY-P200YMF-C



PUHY-P250YMF-C



• How to obtain piping equivalent length

① **PUHY-P200YMF-C**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.47 × number of bent on the piping)m

② **PUHY-P250YMF-C**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 × number of bent on the piping)m

2-4 Correction at frosting and defrosting

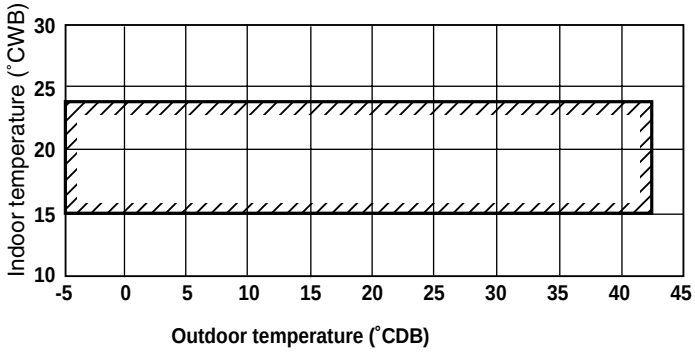
When a decrease in heating capacity due to frosted and defrosting operations is considered, the value multiplied by the correction factor in the table below represents the heating capacity.

Correction factor table

Outdoor inlet air temp (˚CWB)	6	4	2	0	-2	-4	-6	-8	-10
Correction factor	1.0	0.95	0.84	0.83	0.87	0.9	0.95	0.95	0.95

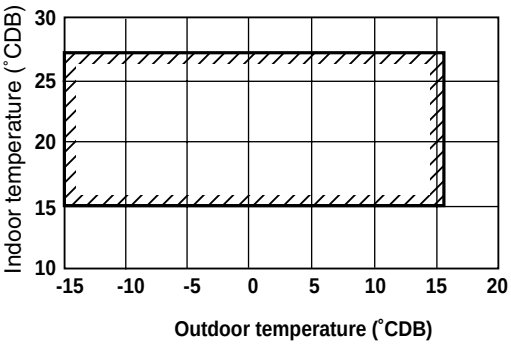
2-5 Operation limit

• Cooling



(Outdoor door temperature :0˚CDB~43˚CDB with outdoor unit at lower position in cooling mode.)

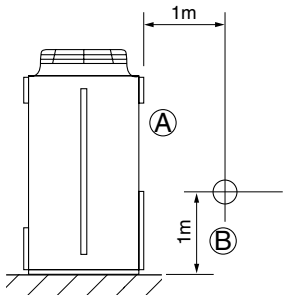
• Heating



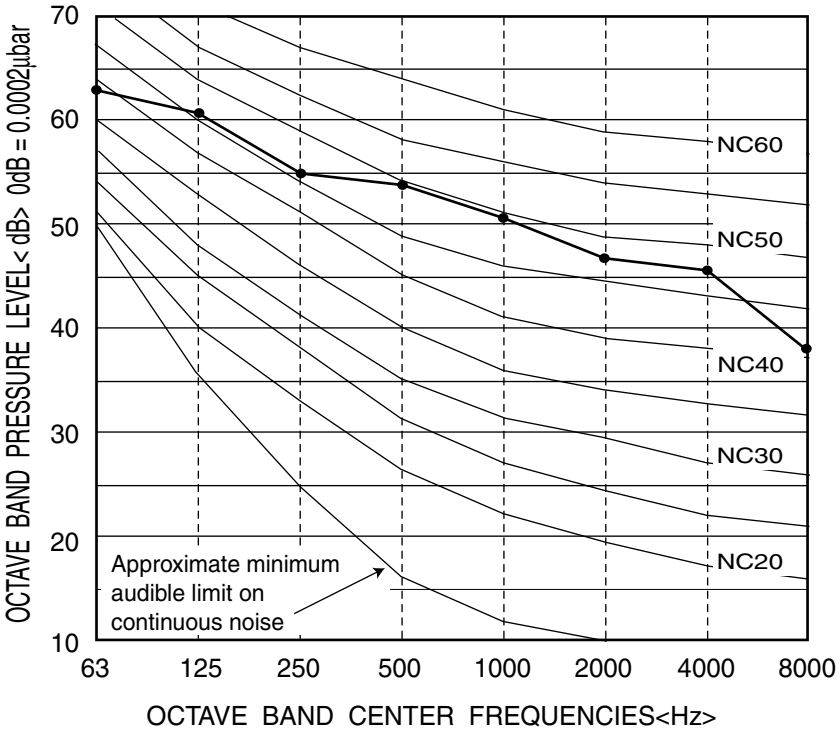
3. Sound levels

PUHY-P200YMF-C

Measurement condition

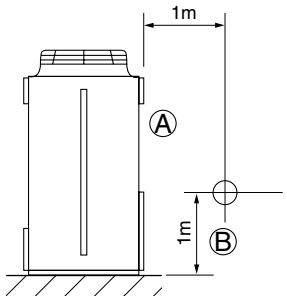


Sound pressure level in anechoic room
56 dB (A)

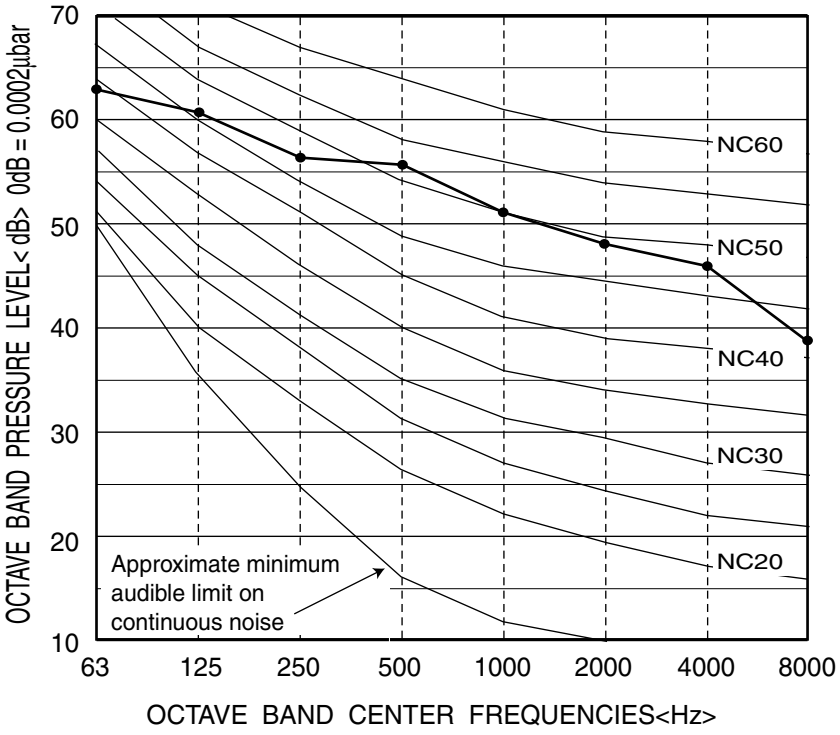


PUHY-P250YMF-C

Measurement condition



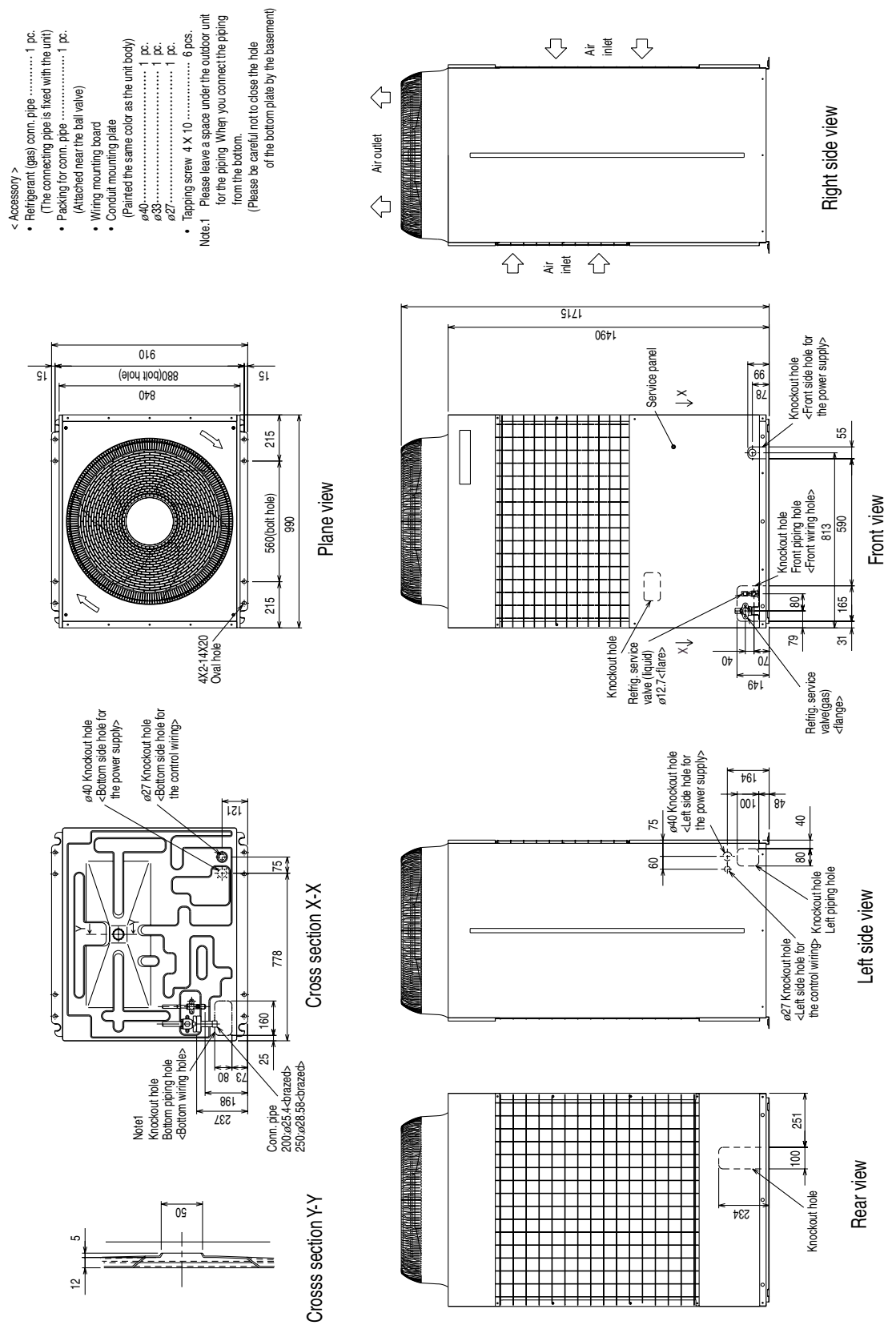
Sound pressure level in anechoic room
57 dB (A)



4. External dimensions

PUHY-P200,250YMF-C

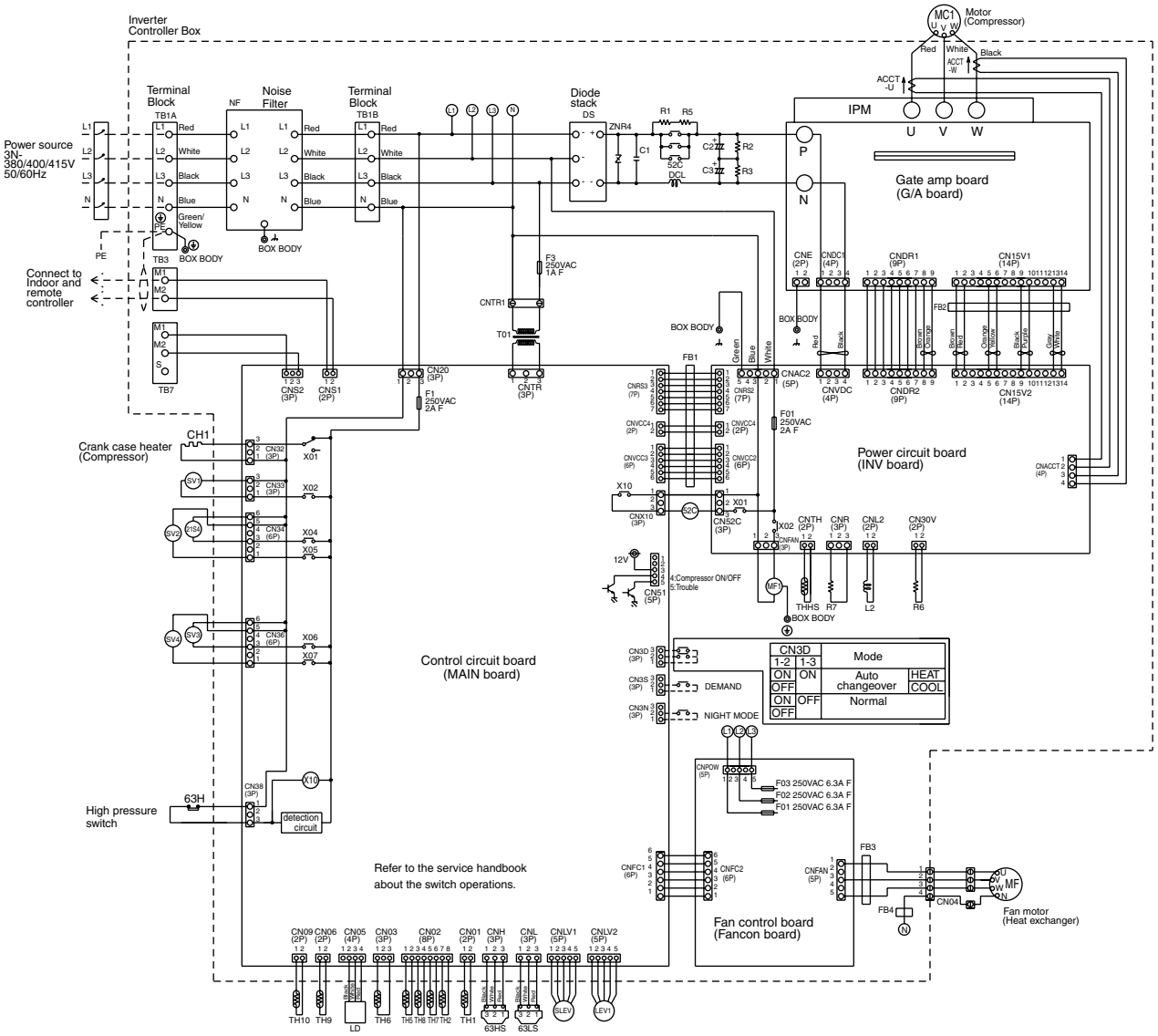
Unit : mm



5. Electrical Wiring Diagram

PUHY-P200, 250YMF-C

Y-8,10(R407C)

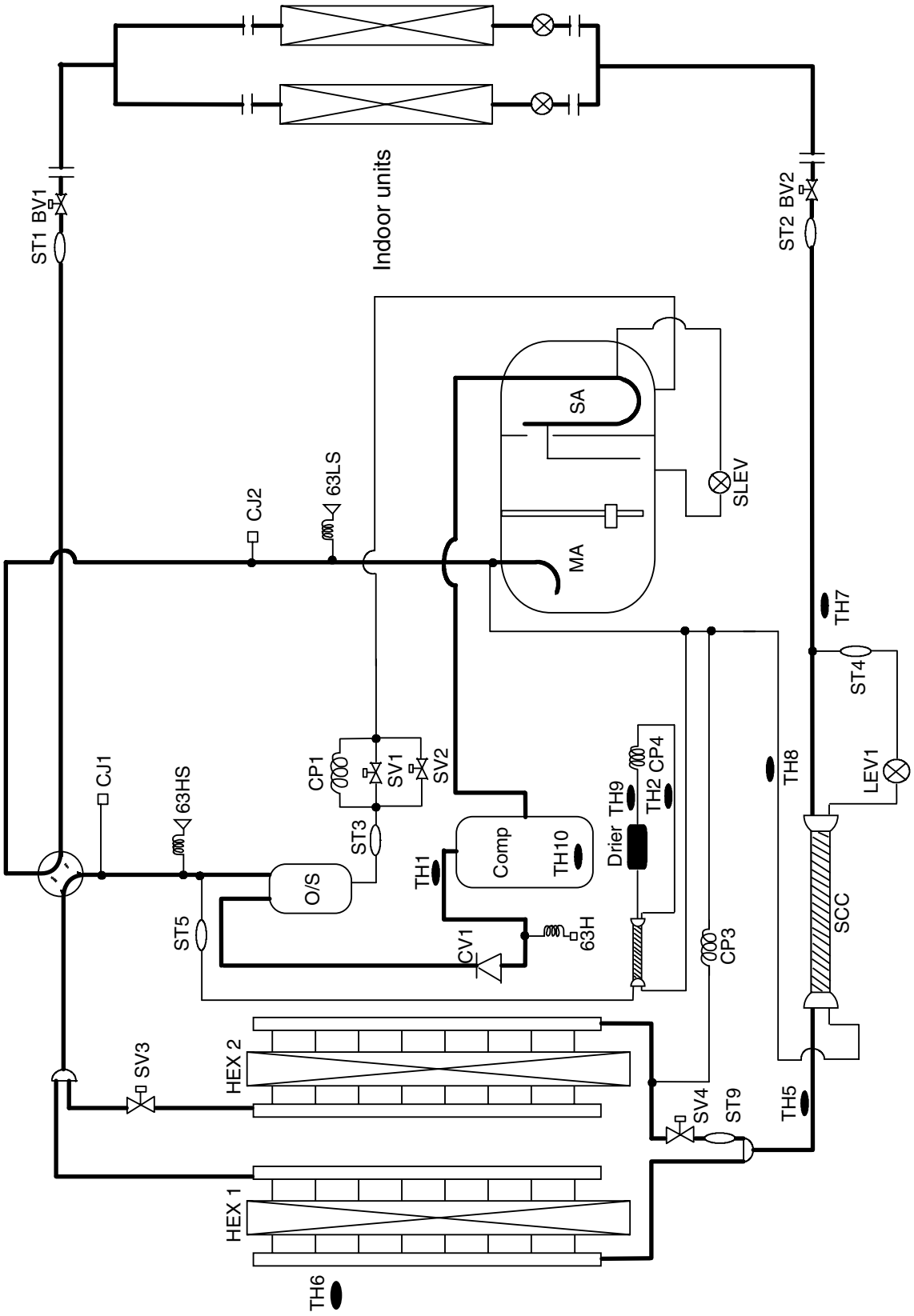


<SYMBOL EXPLANATION>

Symbol	Name	Symbol	Name	Symbol	Name		Symbol	Name
DCL	DC reactor (Power factor improvement)	SV4	Solenoid valve (Heat exchanger capacity control)	TH1	Thermistor	Discharge pipe temp. detect	TH10	Compressor shell temp.
ACCT-U,W	Current Sensor			TH2		Saturation evapo. temp. detect	THHS	Radiator panel temp. detect
ZNR4	Varistor	LEV1	Electronic expansion valve (Sub-cool coil bypass)	TH5		Pipe temp. detect	LD	Accumlator liquid level detect
52C	Magnetic contactor (Inverter main circuit)			TH6		OA temp. detect	X1~10	Aux. relay
MF1	Fan motor (Radiator panel)	SLEV	Electronic expansion valve(Oil return)	TH7		liquid outlet temp. detect at Sub-cool coil	FB1~4	Ferrite core
21S4	4-way valve	63HS	High pressure sensor				⏚	Earth terminal
SV1,SV2	Solenoid valve (Discharge-suction bypass)	63LS	Low pressure sensor	TH8		bypass outlet temp. detect at Sub-cool coil		
SV3	Solenoid valve (Heat exchanger capacity control)	L2	Choke coil (Transmission)					
		IPM	Intelligent power module	TH9		High pressure liquid. temp.		

6. Refrigerant circuit diagram and Thermal sensor

PUHY-P200, 250YMF-C



PUHY-P400YMF-B, PUHY-P500YMF-B

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5. Wiring Diagram 30

6. Refrigerant Circuit Diagram And Thermal Sensor 31

1. Specifications

Model name			PUHY-P400YMF-B	
			Cooling	Heating
Capacity		kcal/h	40,000	45,000
		kW	46.5	52.3
		BTU/h	158,800	178,600
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	16.9	15.9
Current		A	28.2/26.8/25.8	26.5/25.2/24.3
Fan	Type× Quantity		Propeller fan ×2	
	Airflow rate	m^3/min	370	
	Motor output	kW	0.35 × 2	
Compressor	Type		Hermetic	
	Motor output	kW	4.5 + 7.5	
	Crankcase heater	kW	0.045 + 0.056	
Refrigerant / Lubricant			R407C / MEL32	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
External dimension		mm	1715(H)× 1990(W) × 840(L)	
Protection devices	High pressure protection		30kg/cm^2G(2.94MPa)	
	Compressor / Fan		Overcurrent protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	
Refrigerant piping diameter		Liquid / Gas	ø 15.88 flare / ø 34.93 Flange	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 25 ~ 250 / 1 ~ 20	
Noise level		dB<A>	60 / 61	
Net weight		kg	455	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (10˚CDB ~43˚CDB with outdoor unit at lower position, or with indoor unit 25 type only is working.)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-12˚CWB ~ 15.5˚CWB (-12˚CWB~10˚CWB with indoor unit 25 type only is working)

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

Cooling Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB

Heating Indoor : 21˚CDB Outdoor : 7˚CDB/6˚CWB

Pipe length : 5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

Model name			PUHY-P500YMF-B	
			Cooling	Heating
Capacity		kcal/h	50,000	56,000
		kW	58.2	65.1
		BTU/h	198,500	222,300
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	21.3	19.65
Current		A	35.1/33.4/32.2	32.8/31.1/30.0
Fan	Type× Quantity		Propeller fan× 2	
	Airflow rate	m^3/min	370	
	Motor output	kW	0.35 × 2	
Compressor	Type		Hermetic	
	Motor output	kW	7.5 + 7.5	
	Crankcase heater	kW	0.045 + 0.056	
Refrigerant / Lubricant			R407C / Polyester oil (POE)	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
External dimension		mm	1715(H)× 1990(W) × 840(L)	
Protection devices	High pressure protection		30kg/cm^2G(2.94MPa)	
	Compressor / Fan		Overcurrent protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	
Refrigerant piping diameter	Liquid / Gas		ø 15.88 flare / ø 34.93 Flange	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 25 ~ 250 / 1 ~ 20	
Noise level		dB<A>	60 / 61	
Net weight		kg	475	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (10˚CDB ~43˚CDB with outdoor unit at lower position, or with indoor unit 25 type only is working.)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-12˚CWB ~ 15.5˚CWB (-12˚CWB~10˚CWB with indoor unit 25 type only is working)

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

Cooling Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB

Heating Indoor : 21˚CDB Outdoor : 7˚CDB/6˚CWB

Pipe length : 5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

2. Capacity tables

2-1. Correction by temperature

Cooling

•Standard Specifications

		PUHY-P400YMF-B	PUHY-P500YMF-B
Capacity	kcal/h	40,000	50,000
	kW	46.5	58.2
	BTU/h	158,800	198,500
Input	kW	16.9	21.3
Source	V	380/400/415	
Current	A	28.2/26.8/25.8	35.1/33.4/32.2

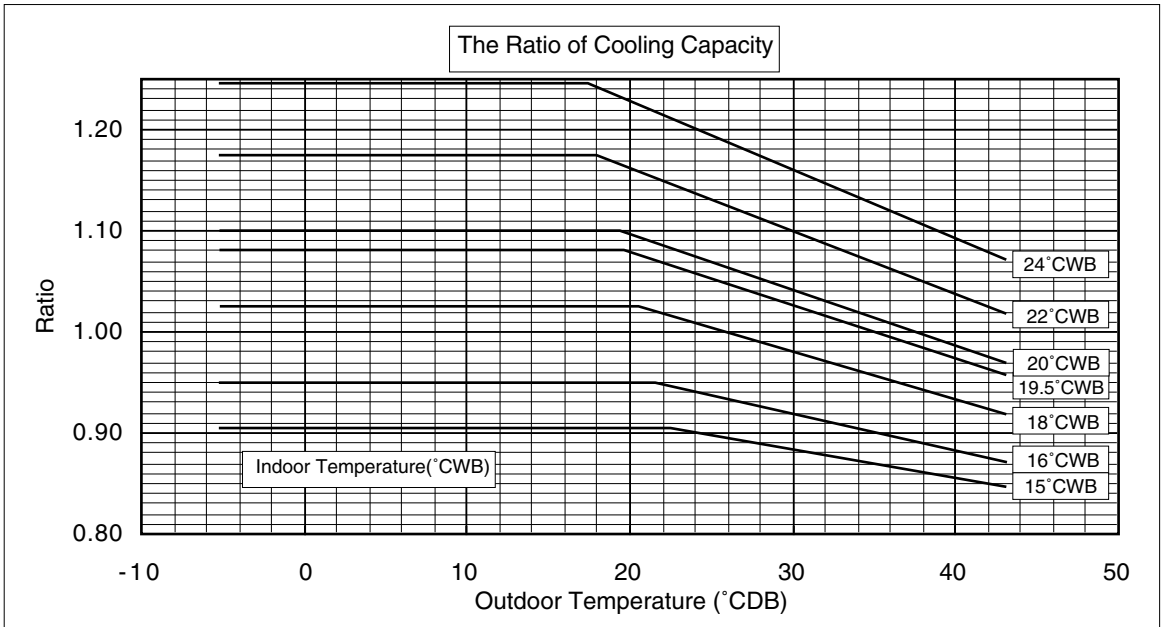
•Calculation

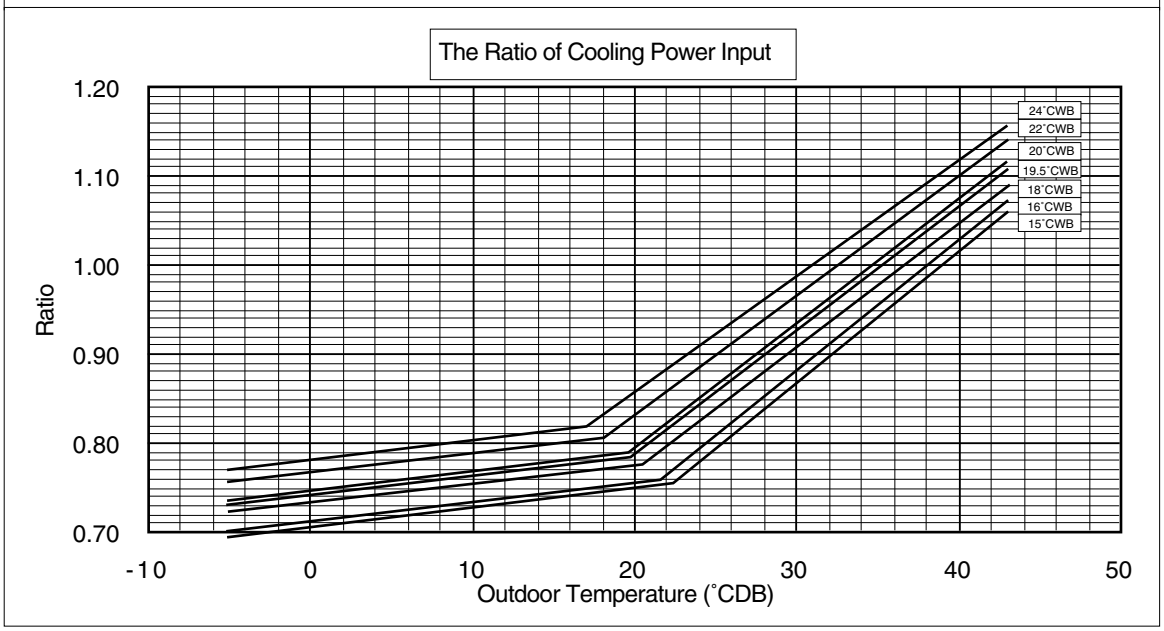
Capacity' = Capacity × Ratio

Input' = Input × Ratio

$$\text{Current}' = \frac{\text{Input}' \times 1000}{\sqrt{3} \times \text{Source} \times 0.91 \text{ (:PUHY-P400YMF-B)} \times 0.92 \text{ (:PUHY-P500YMF-B)}}$$

※Capacity'
Input'
Current'
} After correction





Heating

•Standard Specifications

		PUHY-P400YMF-B	PUHY-P500YMF-B
Capacity	kcal/h	45,000	56,000
	kW	52.3	65.1
	BTU/h	178,600	222,300
Input	kW	15.9	19.65
Source	V	380/400/415	
Current	A	26.5/25.2/24.3	32.8/31.1/30.0

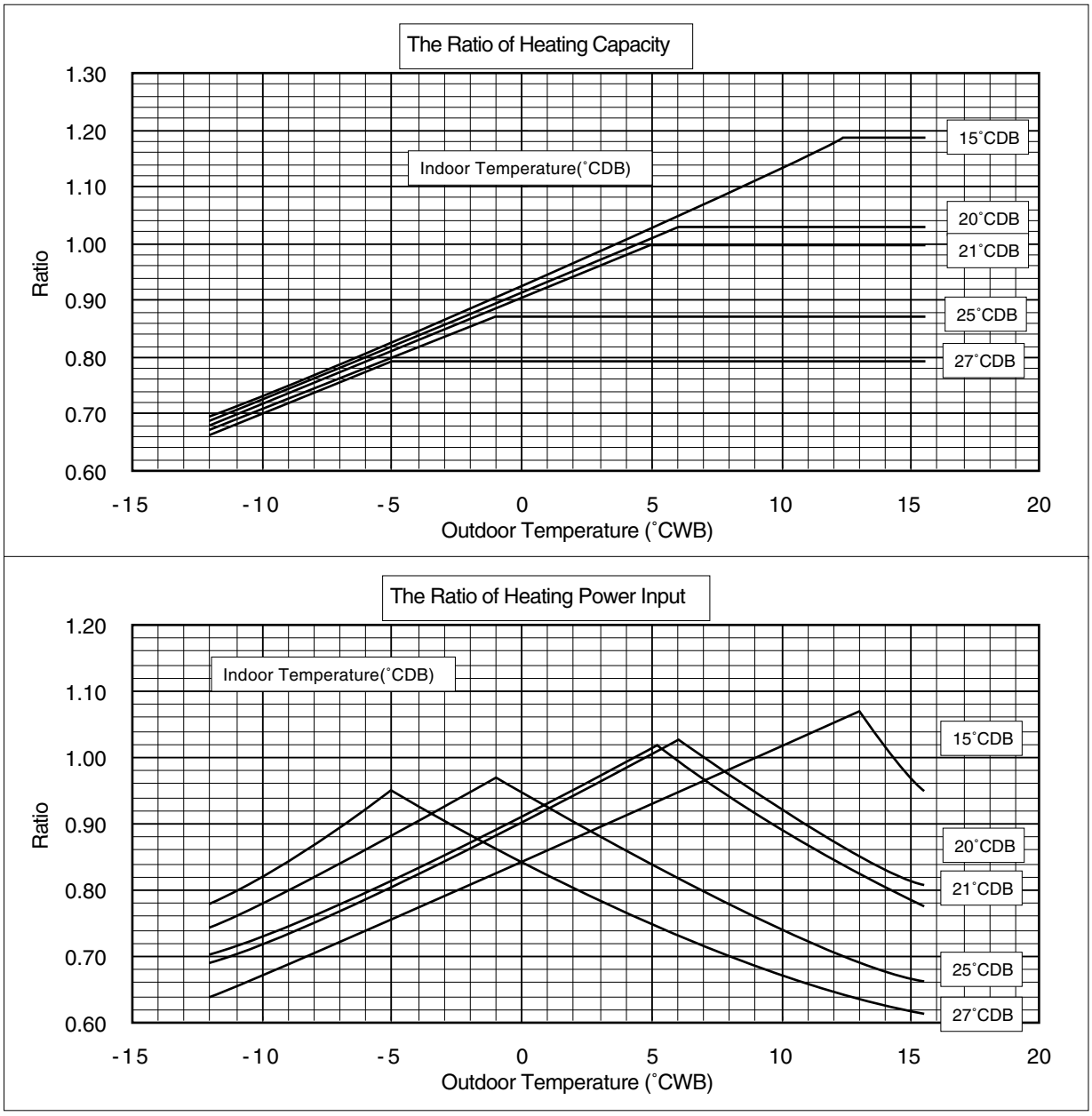
•Calculation

Capacity' = Capacity × Ratio

Input' = Input × Ratio

$$\text{Current}' = \frac{\text{Input}' \times 1000}{\sqrt{3} \times \text{Source} \times 0.91}$$ (:PUHY-P400·500YMF-B)

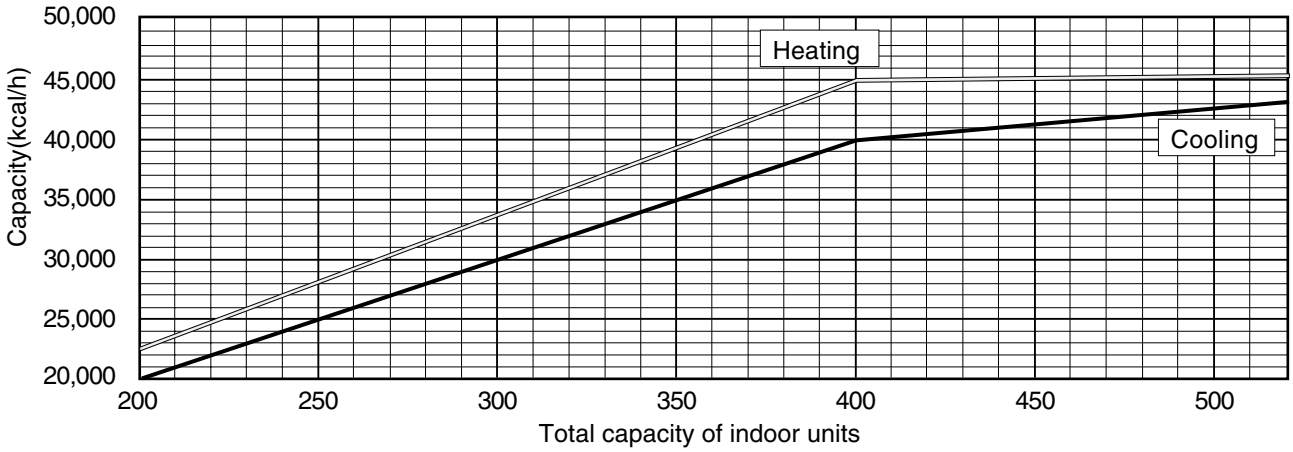
※Capacity'
Input'
Current'
} After correction



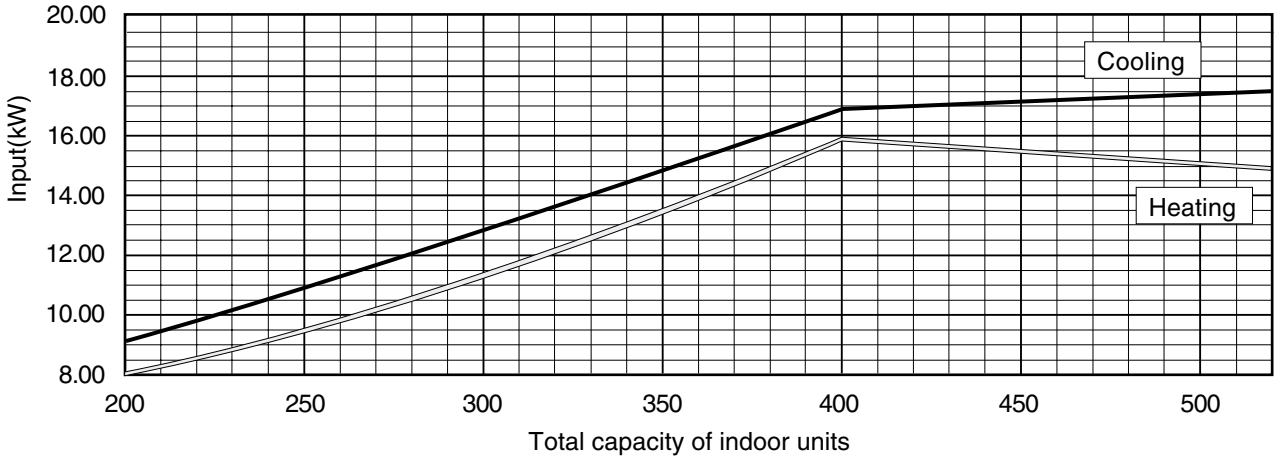
2-2. Correction by total indoor

PUHY-P400YMF-B

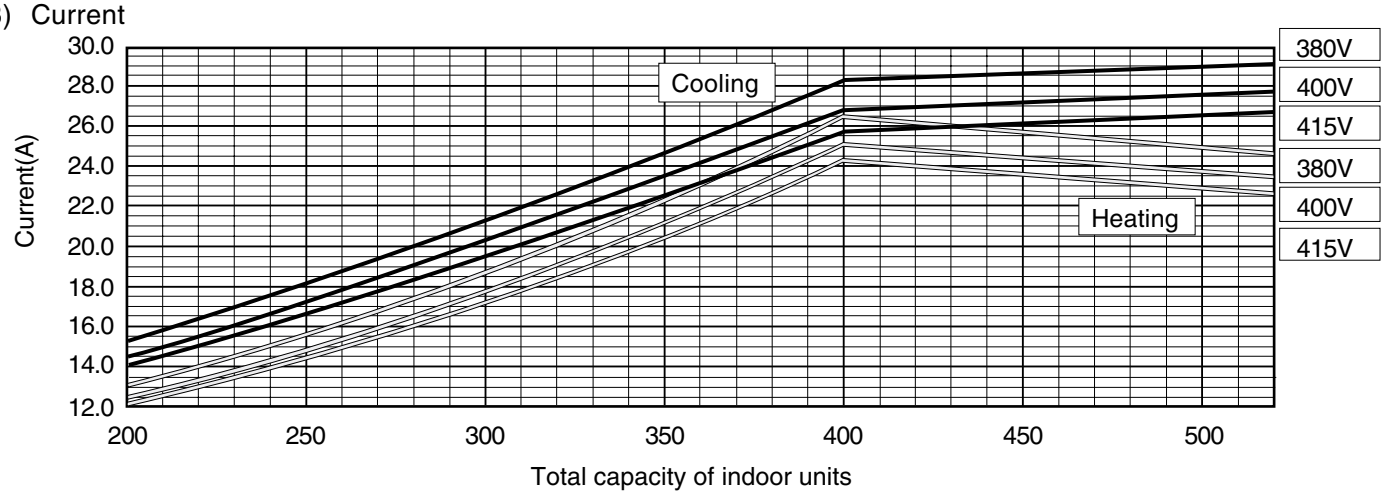
1) Capacity



2) Input

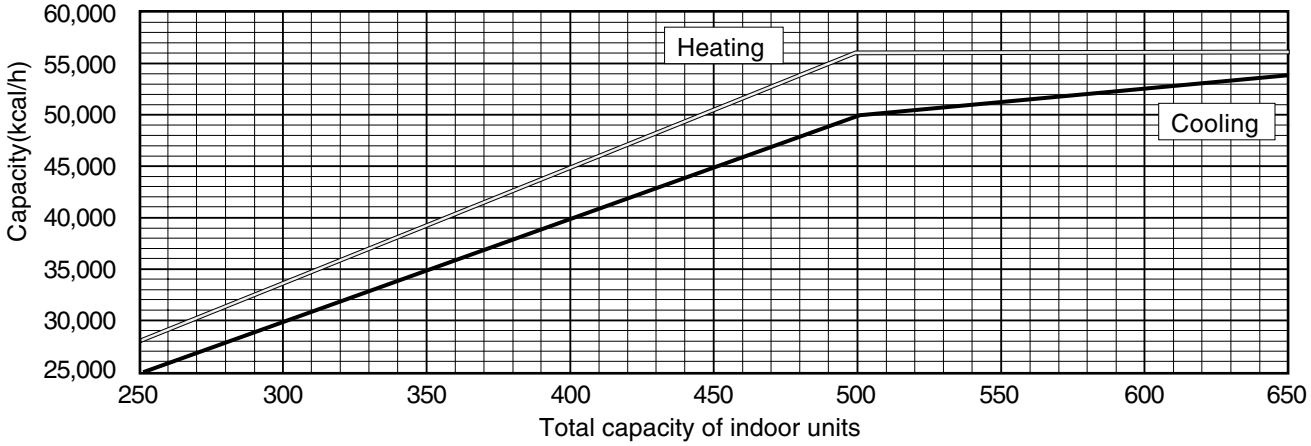


3) Current

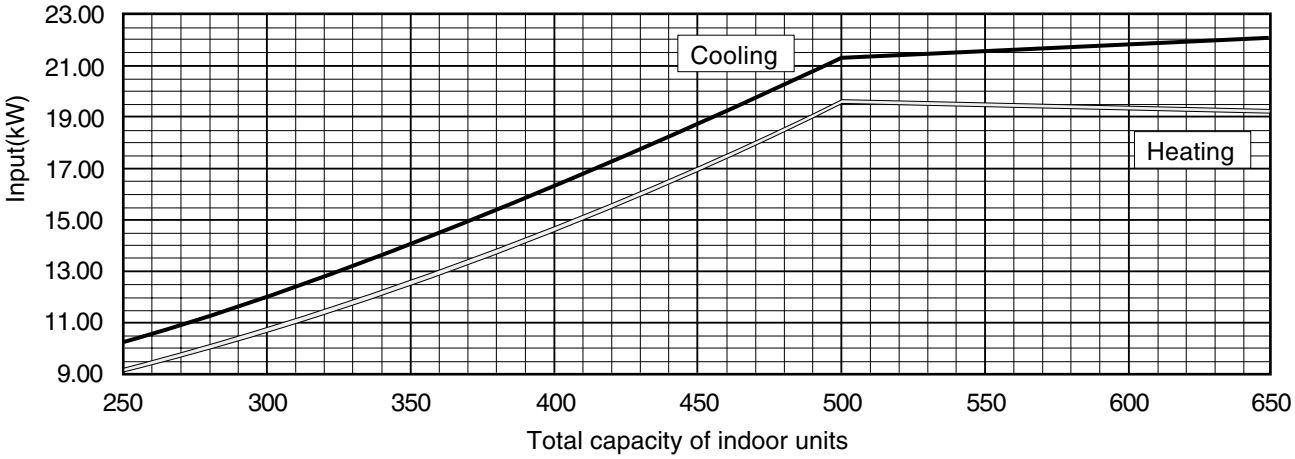


PUHY-P500YMF-B

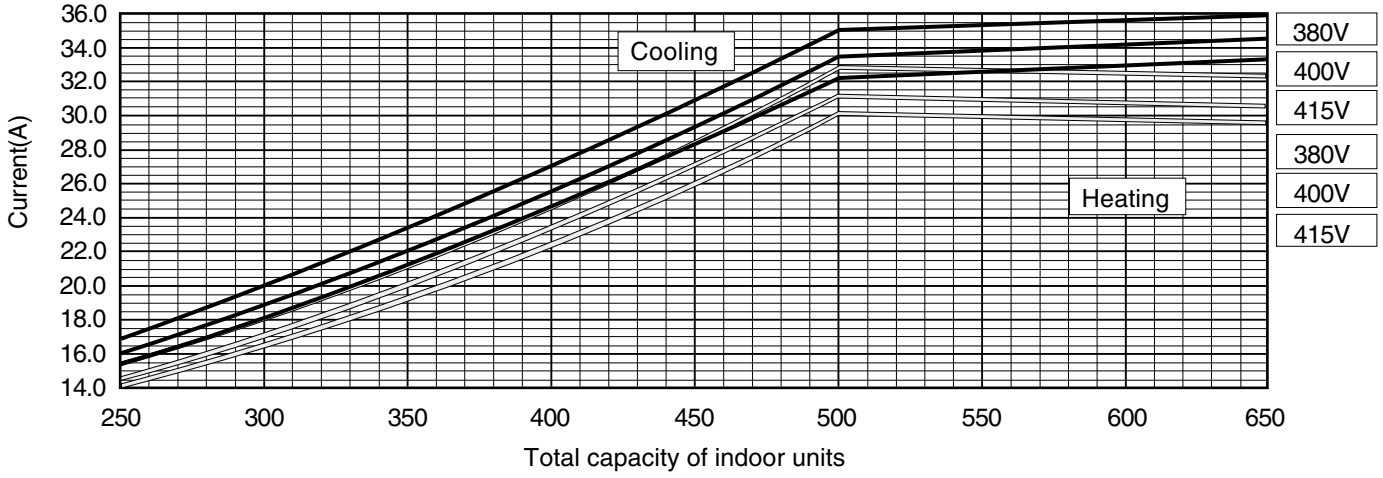
1) Capacity



2) Input



3) Current

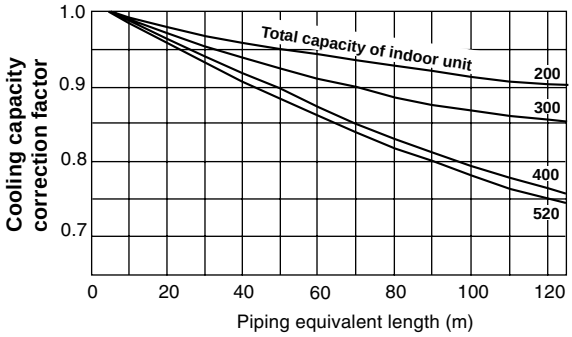


2-3 Correction by refrigerant piping length

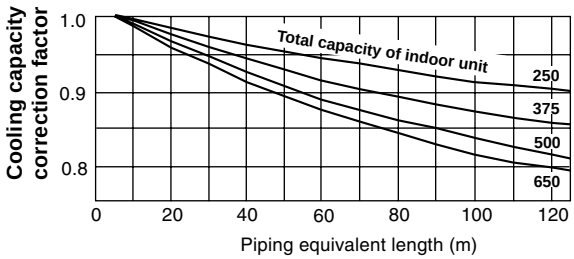
To obtain a decrease in cooling/heating capacity due to refrigerant piping extension, multiply by the capacity correction factor based on the refrigerant piping equivalent length in the table below.

• Cooling capacity correction

PUHY-P400YMF-B

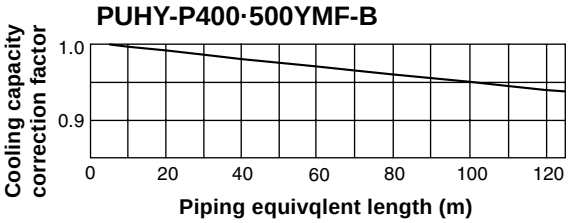


PUHY-P500YMF-B



•Heating capacity correction

PUHY-P400·500YMF-B



• How to obtain piping equivalent length

① **PUHY-P400YMF-B**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.70 × number of bent on the piping)m

② **PUHY-P500YMF-B**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.80 × number of bent on the piping)m

2-4 Correction at frosting and defrosting

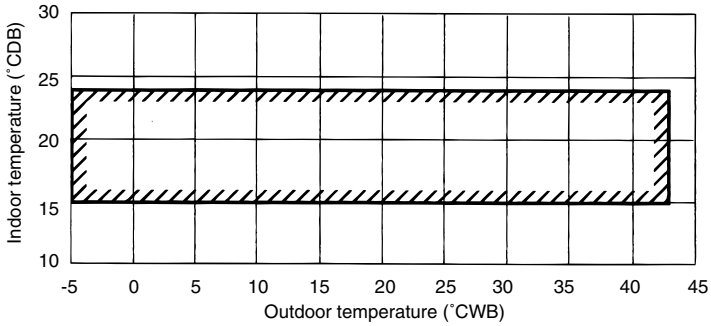
When a decrease in heating capacity due to frosted and defrosting operations is considered, the value multiplied by the correction factor in the table below represents the heating capacity.

Correction factor table

Outdoor inlet air temp (˚CWB)	6	4	2	0	-2	-4	-6	-8	-10
Correction factor	1.0	0.98	0.89	0.89	0.90	0.92	0.95	0.95	0.95

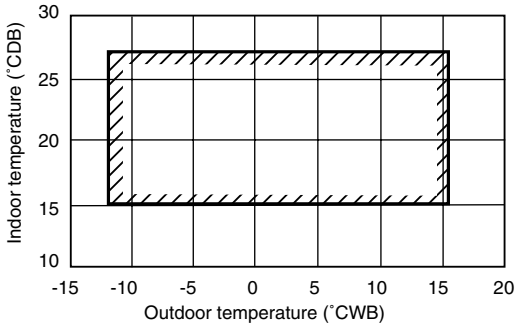
2-5 Operation limit

• Cooling



When the indoor unit is located above the outdoor unit for 4m or more, or indoor unit 25type only is working, the outdoor unit inlet air temperature becomes 10~43˚CDB.

• Heating

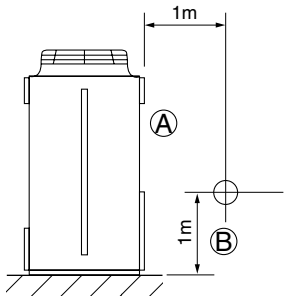


When the indoor unit 25type only is working, the outdoor unit inlet air temperature becomes -12~10˚CWB.

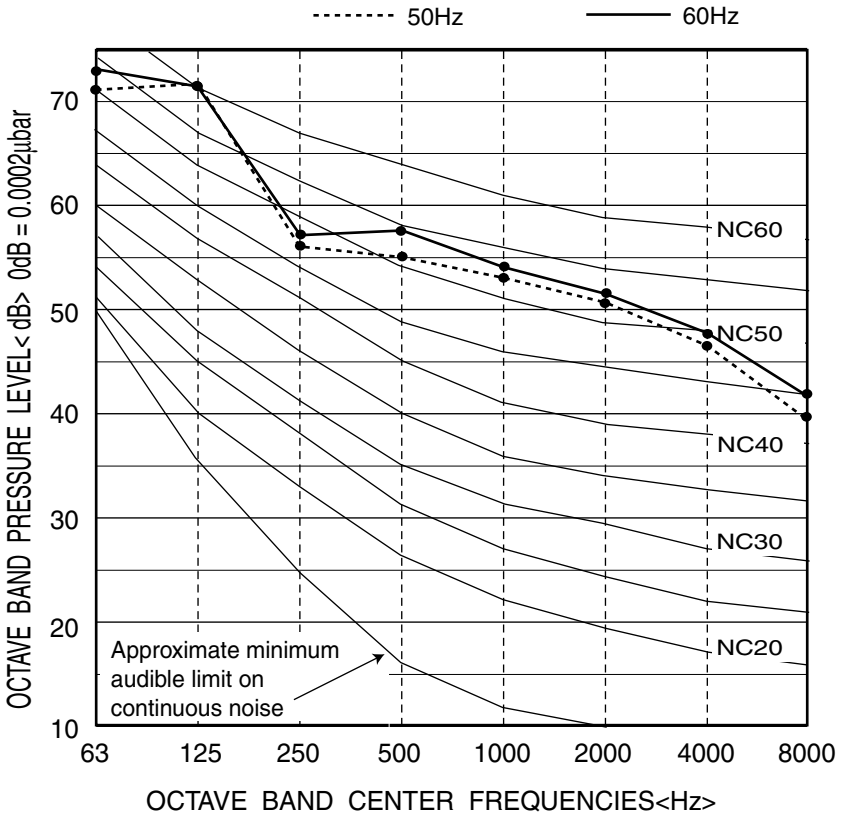
3. Sound levels

PUHY-P400YMF-B

Measurement condition

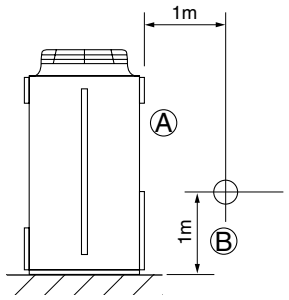


Sound pressure level in anechoic room
60 / 61 dB (A)

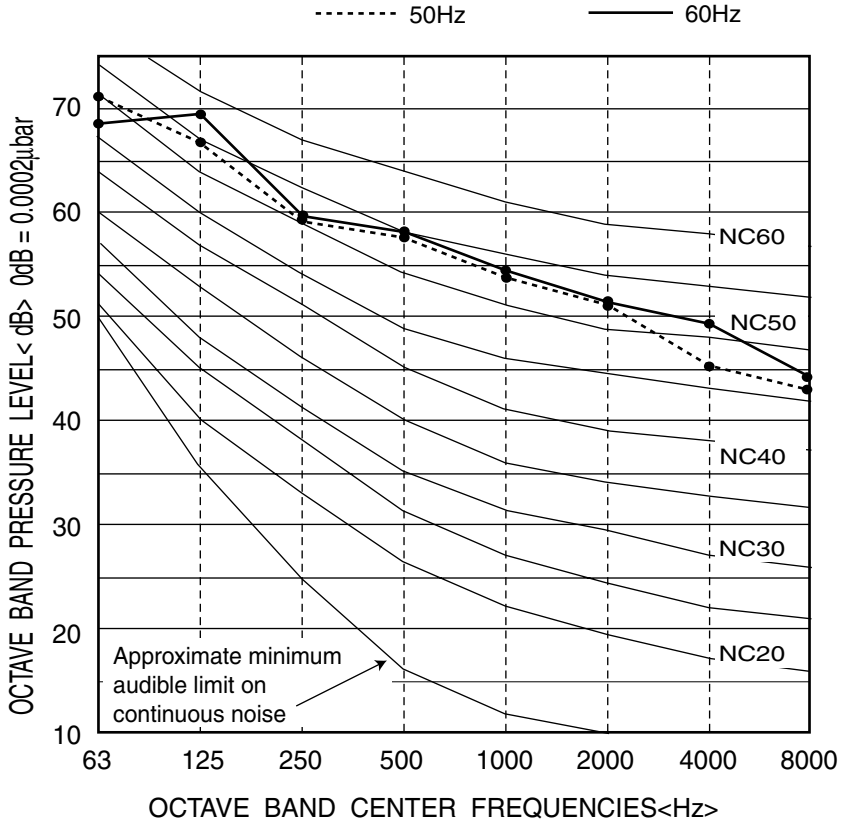


PUHY-P500YMF-B

Measurement condition



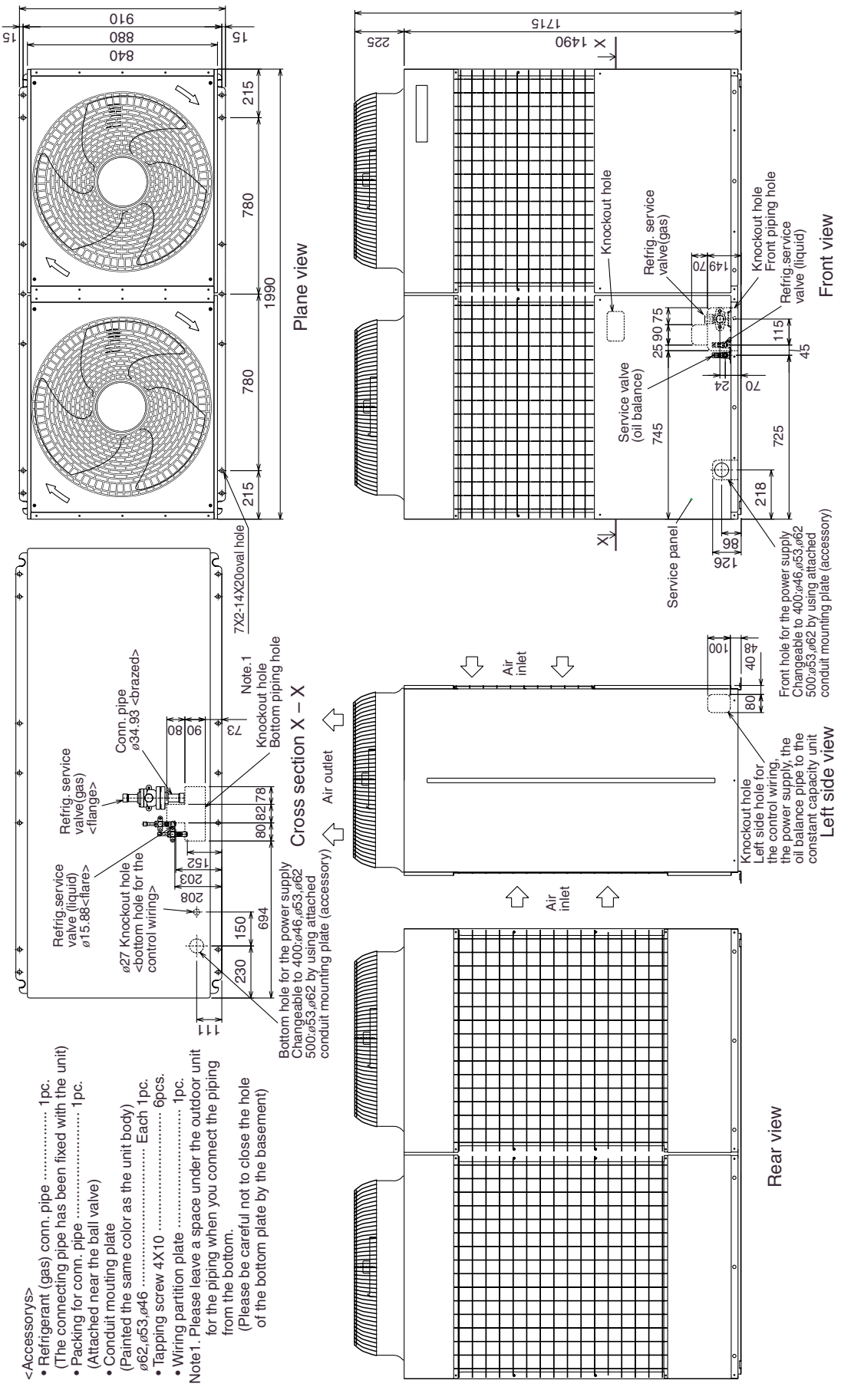
Sound pressure level in anechoic room
60 / 61 dB (A)



4. External dimensions

PUHY-P400,500YMF-B

Unit : mm

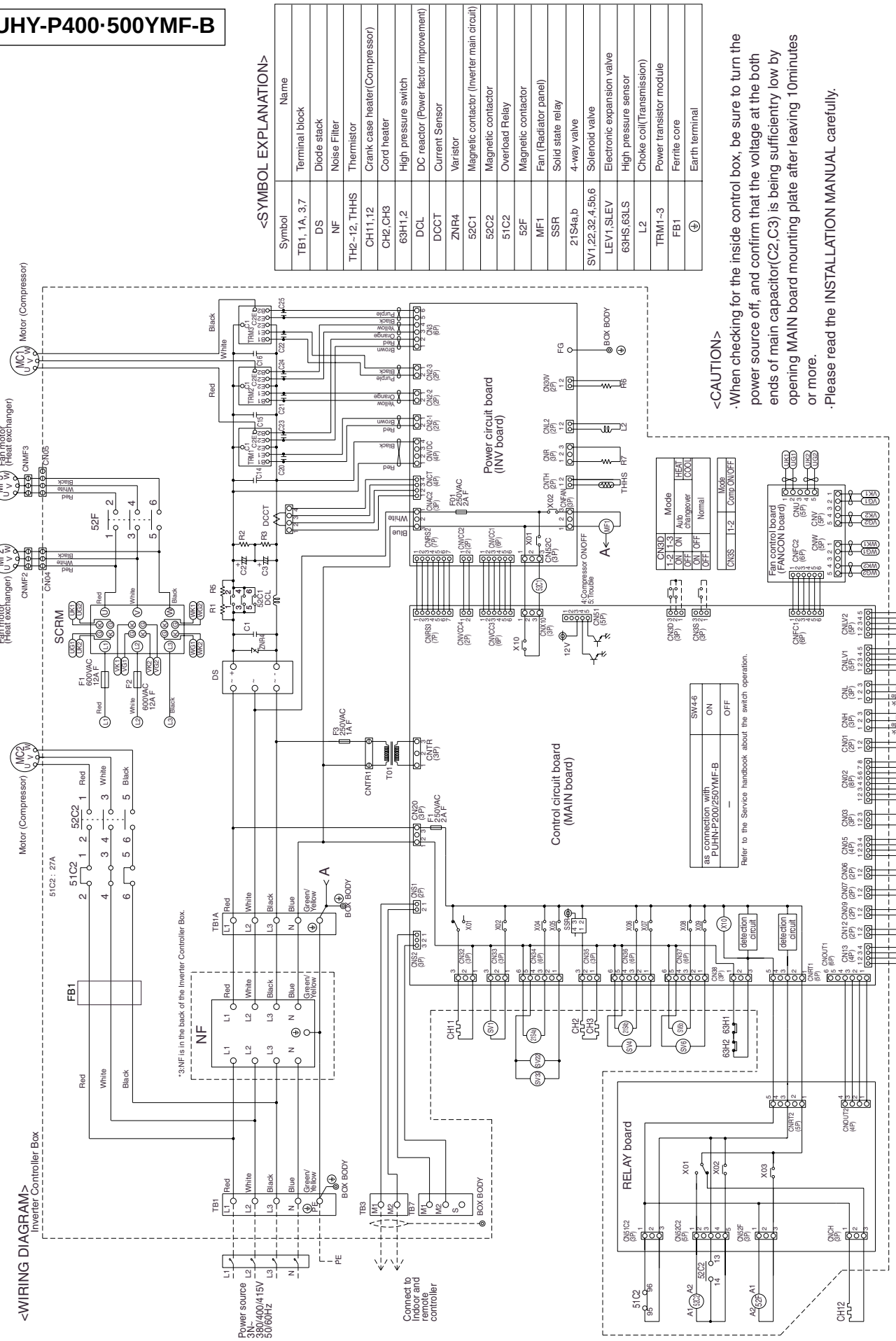

Plane view
Front view
Left side view
Rear view
Cross section X – X
Air outlet
Air inlet
Air inlet
Knockout hole
Refrig. service valve(gas)
Knockout hole Front piping hole
Refrig.service valve (liquid)
Service valve (oil balance)
Service panel
Front hole for the power supply Changeable to 400:ø46,ø53,ø62 500:ø53,ø62 by using attached conduit mounting plate (accessory)
Knockout hole Left side hole for the control wiring, the power supply, the oil balance pipe to the constant capacity unit
7X2-14X20oval hole
Note.1
Knockout hole Bottom piping hole
Conn.pipe ø34.93 <brazed>
Refrig.service valve(gas) <flange>
Refrig.service valve (liquid) ø15.88<flare>
ø27 Knockout hole <bottom hole for the control wiring>
Bottom hole for the power supply Changeable to 400:ø46,ø53,ø62 500:ø53,ø62 by using attached conduit mounting plate (accessory)

<Accessorys>
- Refrigerant (gas) conn. pipe ..... 1pc. (The connecting pipe has been fixed with the unit)
- Packing for conn. pipe ..... 1pc. (Attached near the ball valve)
- Conduit mouting plate (Painted the same color as the unit body) ø62,ø53,ø46 ..... Each 1pc.
- Tapping screw 4X10 ..... 6pcs.
- Wiring partition plate ..... 1pc.

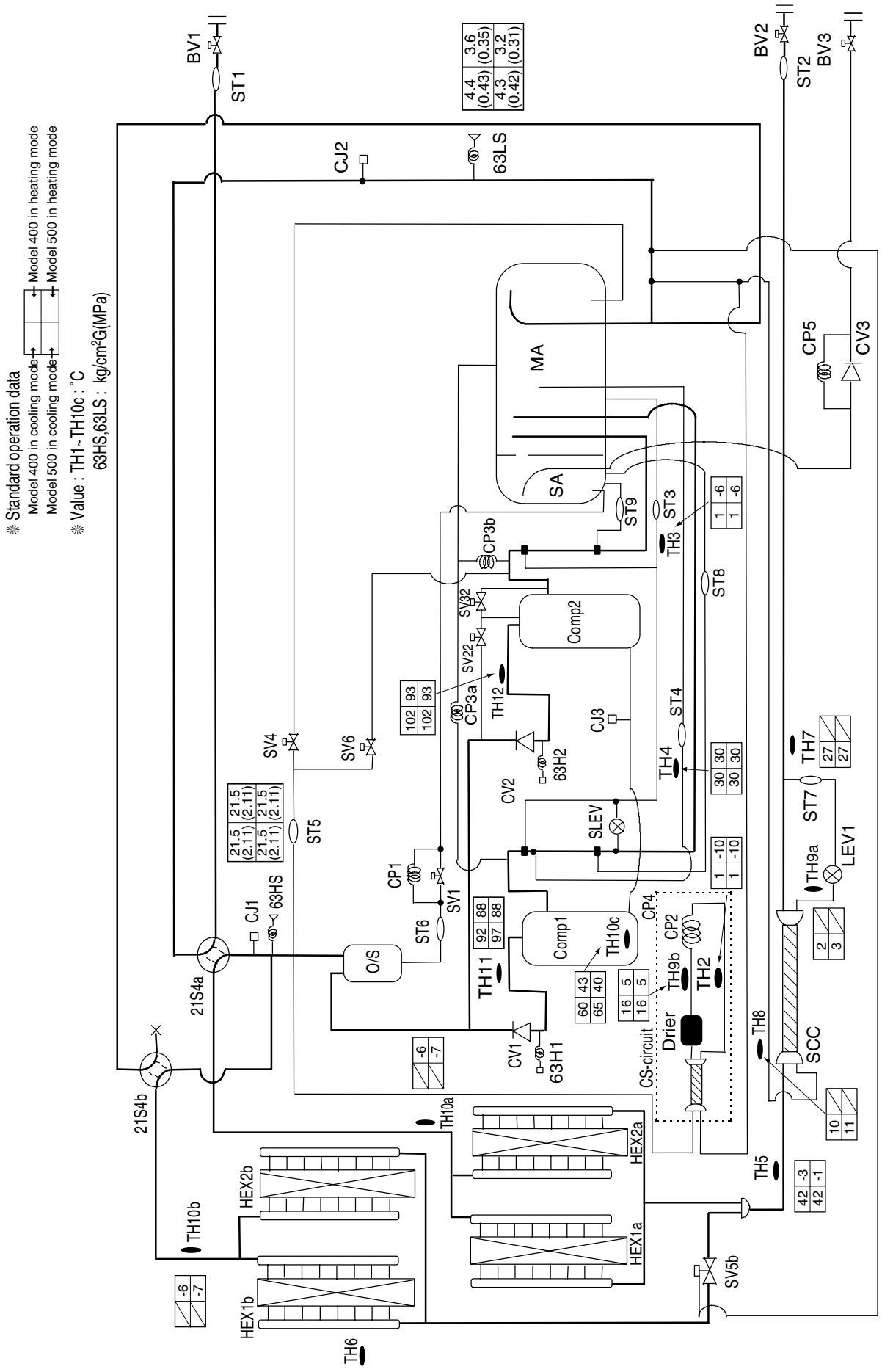
Note1. Please leave a space under the outdoor unit for the piping when you connect the piping from the bottom. (Please be careful not to close the hole of the bottom plate by the basement)

5. Electrical Wiring Diagram

PUHY-P400·500YMF-B


<SYMBOL EXPLANATION>
Symbol | Name
TB1, 1A, 3,7 | Terminal block
DS | Diode stack
NF | Noise Filter
TH2~12, THHS | Thermistor
CH11,12 | Crank case heater(Compressor)
CH2,CH3 | Cord heater
63H1,2 | High pressure switch
DCL | DC reactor (Power factor improvement)
DCCT | Current Sensor
ZNR4 | Varistor
52C1 | Magnetic contactor (Inverter main circuit)
52C2 | Magnetic contactor
51C2 | Overload Relay
52F | Magnetic contactor
MF1 | Fan (Radiator panel)
SSR | Solid state relay
21S4a,b | 4-way valve
SV1,22,32,4,5b,6 | Solenoid valve
LEV1,SLEV | Electronic expansion valve
63HS,63LS | High pressure sensor
L2 | Choke coil(Transmission)
TRM1~3 | Power transistor module
FB1 | Ferrite core
⏚ | Earth terminal
<CAUTION>
·When checking for the inside control box, be sure to turn the power source off, and confirm that the voltage at the both ends of main capacitor(C2,C3) is being sufficiently low by opening MAIN board mounting plate after leaving 10minutes or more.
·Please read the INSTALLATION MANUAL carefully.
<WIRING DIAGRAM>
Inverter Controller Box
Power circuit board (INV board)
Control circuit board (MAIN board)
Fan control board (FANCON board)
RELAY board
Motor (Compressor)
Fan motor (Heat exchanger)
SCRM
NF
FB1
Power source 3N~ 380/400/415V 50/60Hz
Connect to indoor and remote controller
as connection with PUHN-P200/250YMF-B
Refer to the Service handbook about the switch operation.
*3:NF is in the back of the Inverter Controller Box.
51C2 : 27A
Y-16,20(R407C)

6. Refrigerant circuit diagram and Thermal sensor



Y-16,20(R407C)

PUHY-P600YSMF-B, PUHY-P650YSMF-B
PUHY-P700YSMF-B, PUHY-P750YSMF-B

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- 2-5 Operation limit 45

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5. Wiring Diagram 51

6. Refrigerant Circuit Diagram And Thermal Sensor 53

1. Specifications

This unit consists of a conbination of PUHY-P400YMF-B and PUHN-P200YMF-B.

Model name			PUHY-P600YSMF-B	
			Cooling	Heating
Capacity		kcal/h	60,000	67,400
		kW	69.8	78.3
		BTU/h	238,200	267,500
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	25.5	22.95
Current		A	42.5/40.4/38.9	38.3/36.4/35.0
Refrigerant / Lubricant			R407C/MEL32	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 250 / 2 ~ 32	
Noise level		dB<A> (50/60Hz)	61.5 / 62	
Refrigerant piping diameter (main)	Liquid / Gas		ø19.05 / ø34.93	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (10˚CDB~43˚CDB with outdoor unit at lower position, or with indoor unit 20 or 25 type only is working)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB ~ 15.5˚CWB (-12˚CWB~10˚CWB with indoor unit 20 or 25 type only is working)

Model name			PUHY-P400YMF-B	PUHN-P200YMF-B
Fan	Type× Quantity		Propeller fan ×2	Propeller fan ×1
	Airflow rate	m^3/min	370	185
	Motor output	kW	0.35 × 2	0.35 × 1
Compressor	Type		Hermetic	
	Motor output	kW	4.5 + 7.5	5.5
	Crankcase heater	kW	0.045 + 0.056	0.056
External dimension		mm	1715(H)× 1990(W)× 840(L)	1715(H)× 990(W)× 840(L)
Protection devices	High pressure protection		30kg/cm^2G(2.94MPa)	
	Compressor / Fan		Overcurrent protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	—
Refrigerant piping diameter	Liquid / Gas		ø 15.88 flare / ø 34.93 Flange	ø 12.7 flare / ø 28.58 Flange
Net weight		kg	455	240

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

Cooling Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB
Heating Indoor : 21˚CDB Outdoor : 7˚CDB/6˚CWB
Pipe length : 10m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

This unit consists of a conbination of PUHY-P400YMF-B and PUHN-P250YMF-B.

Model name			PUHY-P650YSMF-B	
			Cooling	Heating
Capacity		kcal/h	65,000	73,000
		kW	75.6	84.9
		BTU/h	258,100	289,800
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	27.45	25.2
Current		A	45.8/43.5/41.9	42.0/39.9/38.5
Refrigerant / Lubricant			R407C/MEL32	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 250 / 2 ~ 32	
Noise level		dB<A> (50/60Hz)	62.0 / 62.5	
Refrigerant piping diameter (main)	Liquid / Gas		ø 19.05 / ø41.28	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (10˚CDB~43˚CDB with outdoor unit at lower position, or with indoor unit 20 or 25 type only is working)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB ~ 15.5˚CWB (-12˚CWB~10˚CWB with indoor unit 20 or 25 type only is working)

Model name			PUHY-P400YMF-B	PUHN-P250YMF-B
Fan	Type× Quantity		Propeller fan ×2	Propeller fan ×1
	Airflow rate	m^3/min	370	185
	Motor output	kW	0.35 × 2	0.35 × 1
Compressor	Type		Hermetic	
	Motor output	kW	4.5 + 7.5	7.5
	Crankcase heater	kW	0.045 + 0.056	0.056
External dimension		mm	1715(H)× 1990(W)× 840(L)	1715(H)× 990(W)× 840(L)
Protection devices	High pressure protection		30kg/cm^2G(2.94MPa)	
	Compressor / Fan		Overcurrent protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	—
Refrigerant piping diameter	Liquid / Gas		ø 15.88 flare / ø 34.93 Flange	ø 12.7 flare / ø 28.58 Flange
Net weight		kg	455	255

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

Cooling Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB
Heating Indoor : 21˚CDB Outdoor : 7˚CDB/6˚CWB
Pipe length : 10m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

This unit consists of a conbination of PUHY-P500YMF-B and PUHN-P200YMF-B.

Model name			PUHY-P700YSMF-B	
			Cooling	Heating
Capacity		kcal/h	70,000	78,400
		kW	81.5	91.1
		BTU/h	277,900	311,200
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	30.5	26.95
Current		A	50.3/47.8/46.1	44.9/42.7/41.2
Refrigerant / Lubricant			R407C/MEL32	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 250 / 2 ~ 32	
Noise level		dB<A> (50/60Hz)	61.5 / 62.0	
Refrigerant piping diameter (main)	Liquid / Gas		ø19.05 / ø41.28	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (10˚CDB~43˚CDB with outdoor unit at lower position, or with indoor unit 20 or 25 type only is working)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB ~ 15.5˚CWB (-12˚CWB~10˚CWB with indoor unit 20 or 25 type only is working)

Model name			PUHY-P500YMF-B	PUHN-P200YMF-B
Fan	Type× Quantity		Propeller fan ×2	Propeller fan ×1
	Airflow rate	m^3/min	370	185
	Motor output	kW	0.35 × 2	0.35 × 1
Compressor	Type		Hermetic	
	Motor output	kW	7.5 + 7.5	5.5
	Crankcase heater	kW	0.045 + 0.056	0.056
External dimension		mm	1715(H)× 1990(W)× 840(L)	1715(H)× 990(W)× 840(L)
Protection devices	High pressure protection		30kg/cm^2G(2.94MPa)	
	Compressor / Fan		Overcurrent protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	—
Refrigerant piping diameter	Liquid / Gas		ø 15.88 flare / ø 34.93 Flange	ø 12.7 flare / ø 28.58 Flange
Net weight		kg	475	240

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

Cooling Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB
Heating Indoor : 21˚CDB Outdoor : 7˚CDB/6˚CWB
Pipe length : 10m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

This unit consists of a conbination of PUHY-P500YMF-B and PUHN-P250YMF-B.

Model name			PUHY-P750YSMF-B	
			Cooling	Heating
Capacity		kcal/h	75,000	84,000
		kW	87.3	97.7
		BTU/h	297,800	333,500
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	32.4	28.95
Current		A	53.5/50.8/48.9	48.3/45.9/44.2
Refrigerant / Lubricant			R407C/MEL32	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 250 / 2 ~ 32	
Noise level		dB<A> (50/60Hz)	62.0 / 62.5	
Refrigerant piping diameter (main)	Liquid / Gas		ø19.05 / ø41.28	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (10˚CDB~43˚CDB with outdoor unit at lower position, or with indoor unit 20 or 25 type only is working)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB ~ 15.5˚CWB (-12˚CWB~10˚CWB with indoor unit 20 or 25 type only is working)

			PUHY-P500YMF-B	PUHN-P250YMF-B
Fan	Type× Quantity		Propeller fan ×2	Propeller fan ×1
	Airflow rate	m^3/min	370	185
	Motor output	kW	0.35 × 2	0.35 × 1
Compressor	Type		Hermetic	
	Motor output	kW	7.5 + 7.5	7.5
	Crankcase heater	kW	0.045 + 0.056	0.056
External dimension		mm	1715(H)× 1990(W)× 840(L)	1715(H)× 990(W)× 840(L)
Protection devices	High pressure protection		30kg/cm^2G(2.94MPa)	
	Compressor / Fan		Overcurrent protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	—
Refrigerant piping diameter	Liquid / Gas		ø 15.88 flare / ø 34.93 Flange	ø 12.7 flare / ø 28.58 Flange
Net weight		kg	475	255

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB
Heating Indoor : 21˚CDB Outdoor : 7˚CDB/6˚CWB
Pipe length : 10m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

2. Capacity tables

2-1. Correction by temperature

Cooling

•Standard Specifications

		PUHY-P600YSMF-B	PUHY-P650YSMF-B	PUHY-P700YSMF-B	PUHY-P750YSMF-B
Capacity	kcal/h	60,000	65,000	70,000	75,000
	kW	69.8	75.6	81.5	87.3
	BTU/h	238,200	258,100	277,900	297,800
Input	kW	25.5	27.45	30.5	32.4
Source	V	380/400/415			
Current	A	42.5/40.4/38.9	45.8/43.5/41.9	50.3/47.8/46.1	53.5/50.8/48.9

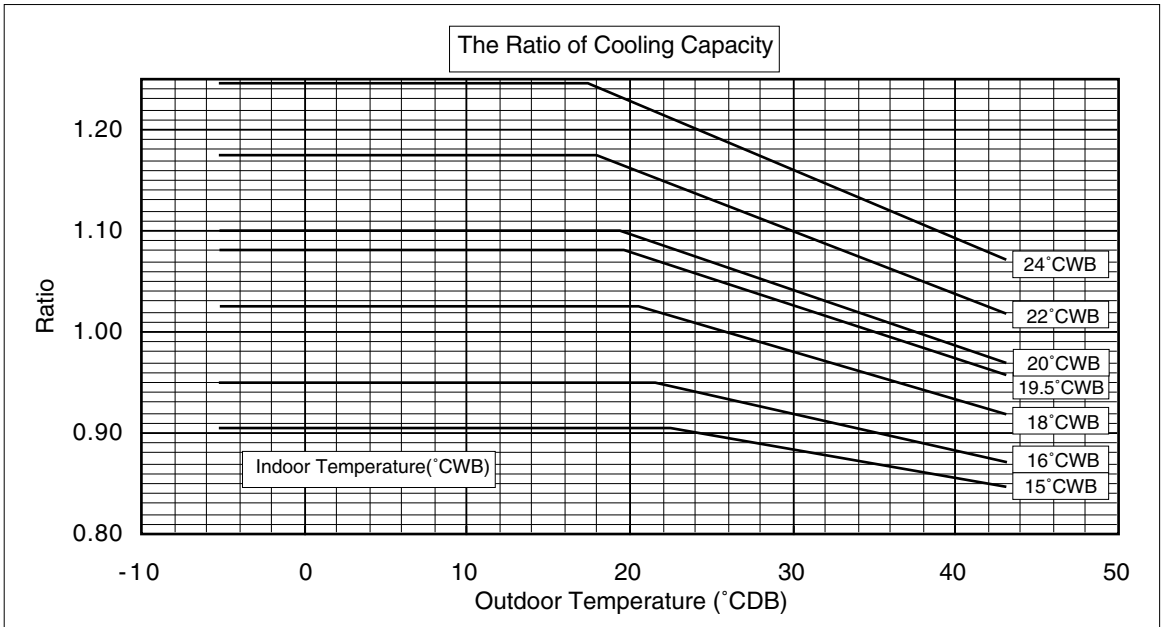
•Calculation

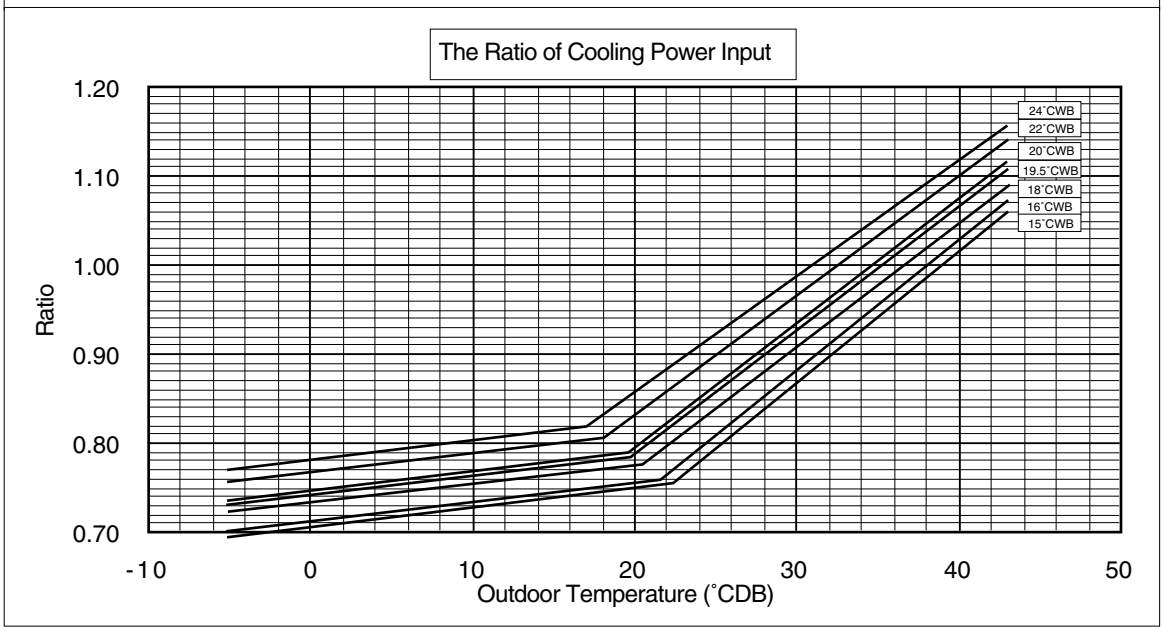
Capacity' = Capacity × Ratio

Input' = Input × Ratio

$$\text{Current'} = \frac{\text{Input'} \times 1000}{\sqrt{3} \times \text{Source} \times 0.91 \text{(:PUHY-P600·650YSMF-B)} \times 0.92 \text{(:PUHY-P700·750YSMF-B)}}$$

※Capacity'
Input'
Current'
} After correction





Heating

•Standard Specifications

		PUHY-P600YSMF-B	PUHY-P650YSMF-B	PUHY-P700YSMF-B	PUHY-P750YSMF-B
Capacity	kcal/h	67,400	73,000	78,400	84,000
	kW	78.3	84.9	91.1	97.7
	BTU/h	267,500	289,800	311,200	333,500
Input	kW	22.95	25.2	26.95	28.95
Source	V	380/400/415			
Current	A	38.3/36.4/35.0	42.0/39.9/38.5	44.9/42.7/41.2	48.3/45.9/44.2

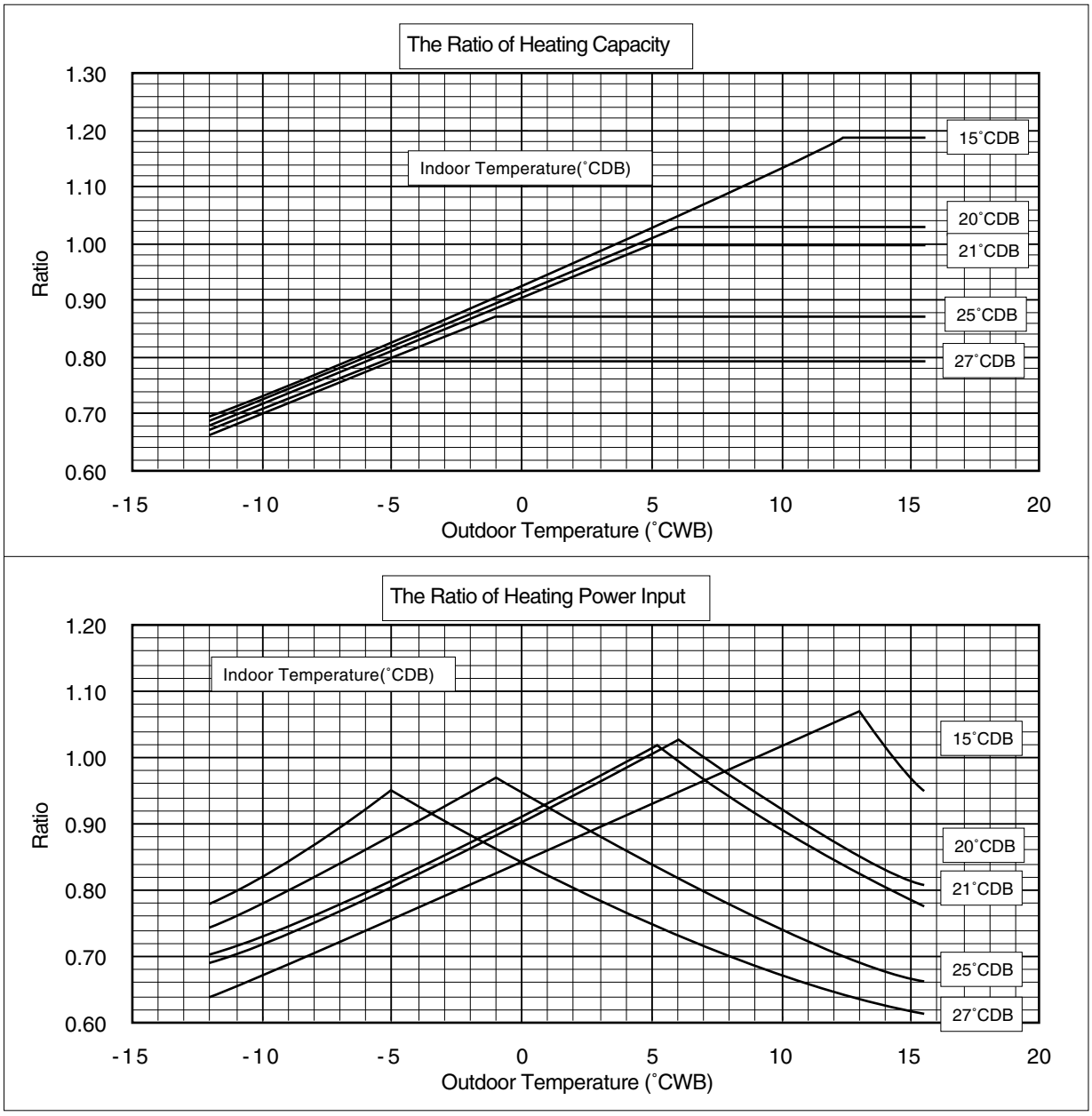
•Calculation

Capacity' = Capacity × Ratio

Input' = Input × Ratio

$$\text{Current'} = \frac{\text{Input'} \times 1000}{\sqrt{3} \times \text{Source} \times 0.91 \text{ (:PUHY-P600·650·700·750YSMF-B)}}$$

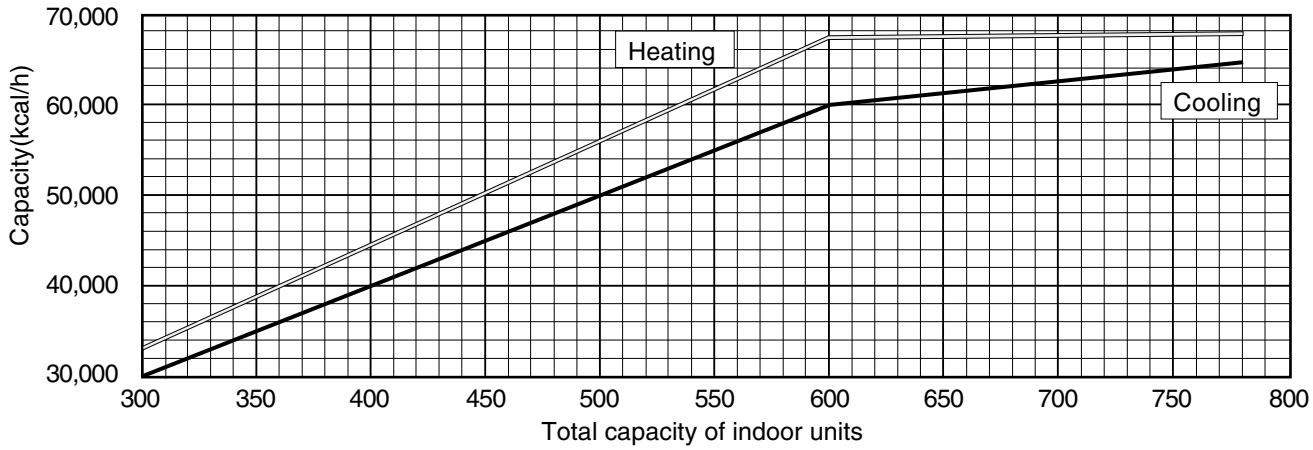
※Capacity'
Input'
Current'
} After correction



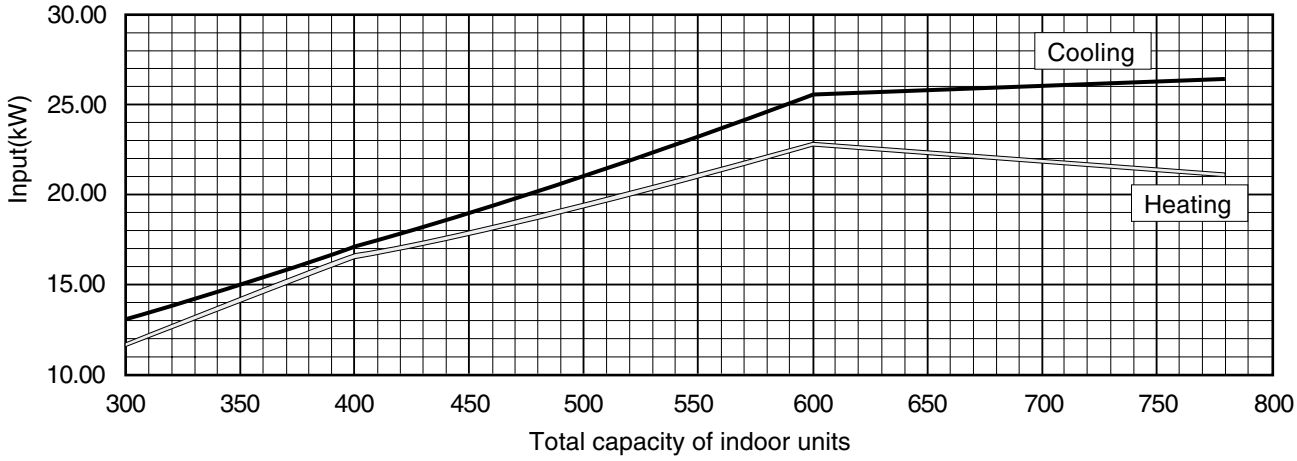
2-2. Correction by total indoor

PUHY-P600YSMF-B

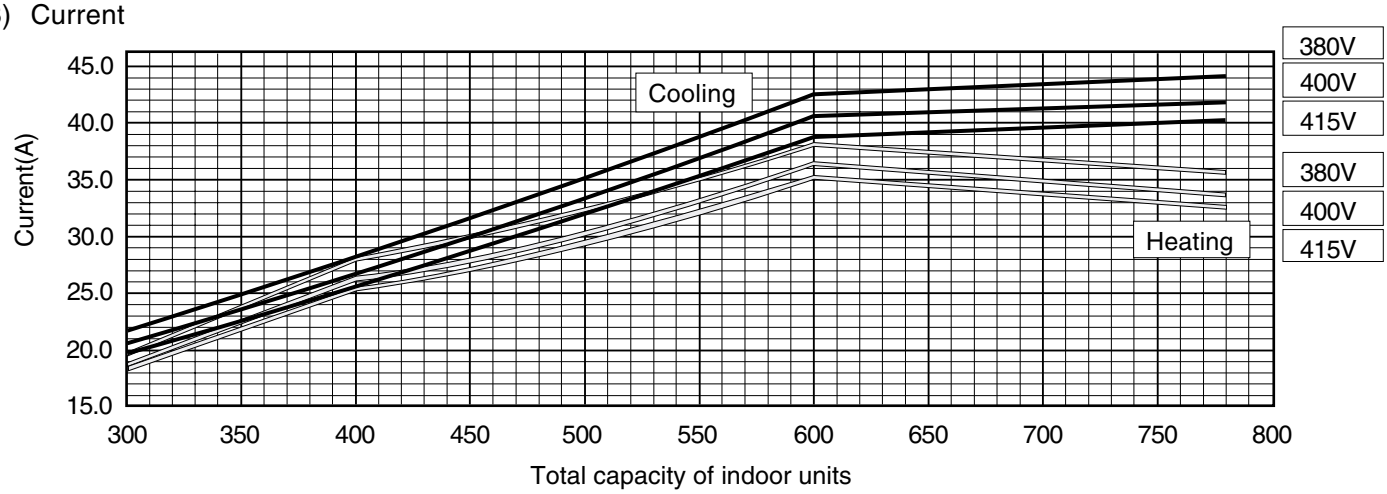
1) Capacity



2) Input

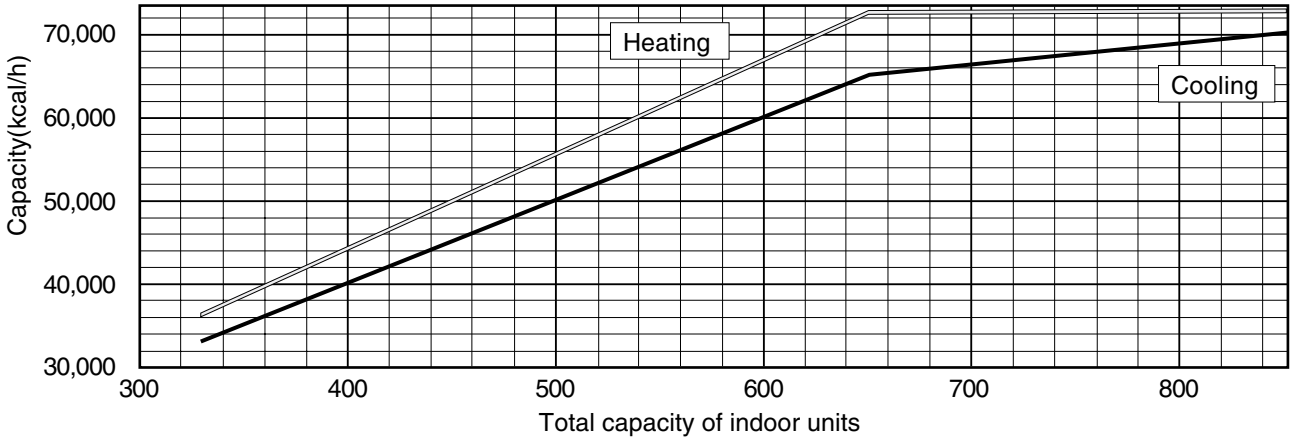


3) Current

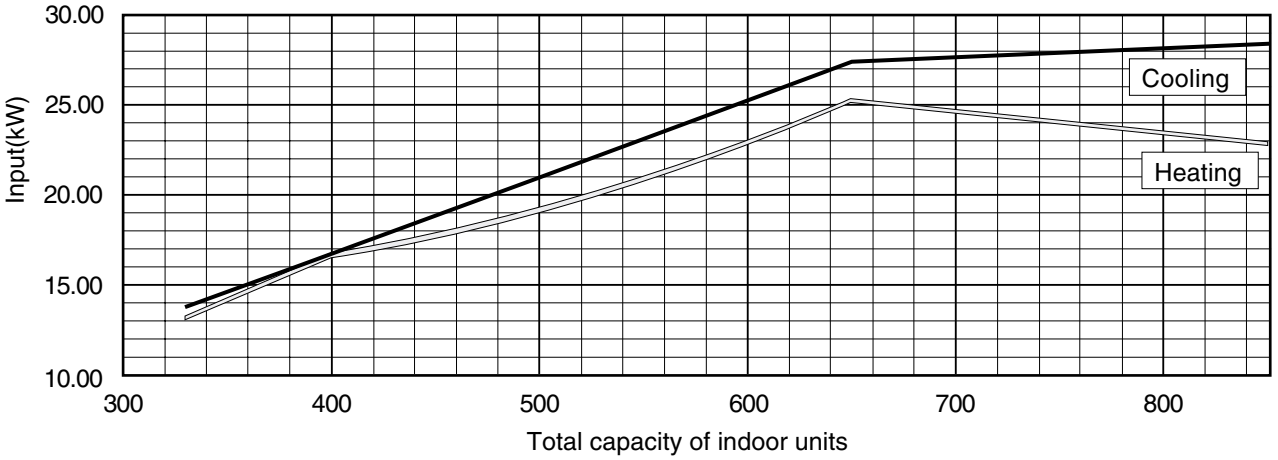


PUHY-P650YSMF-B

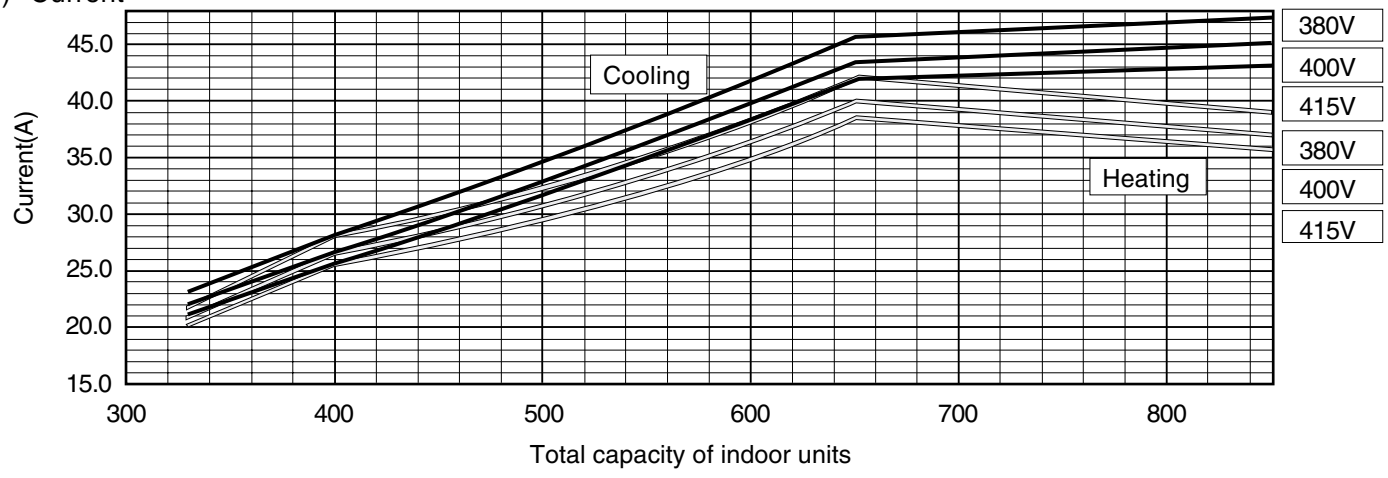
1) Capacity



2) Input

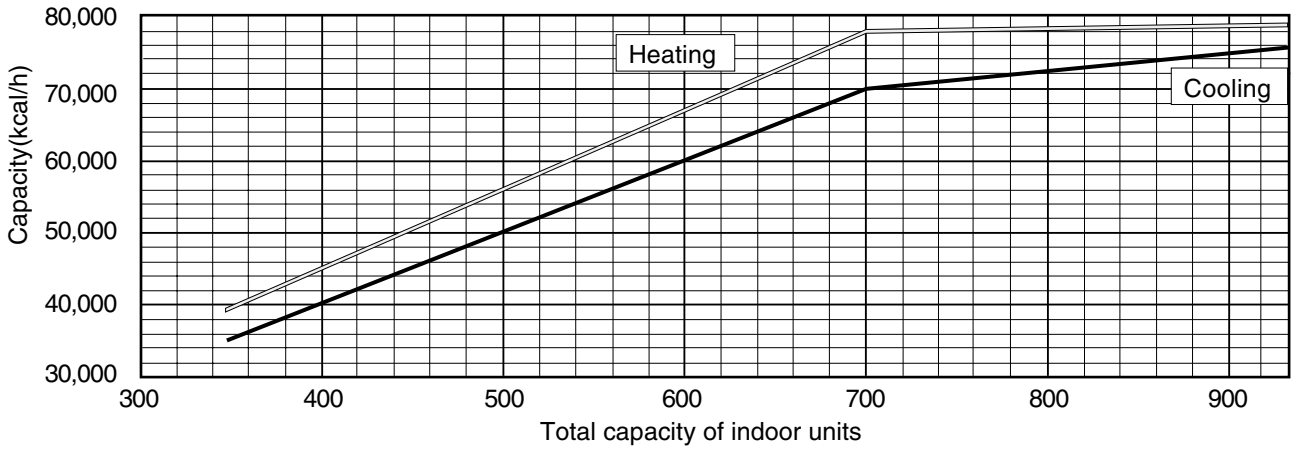


3) Current

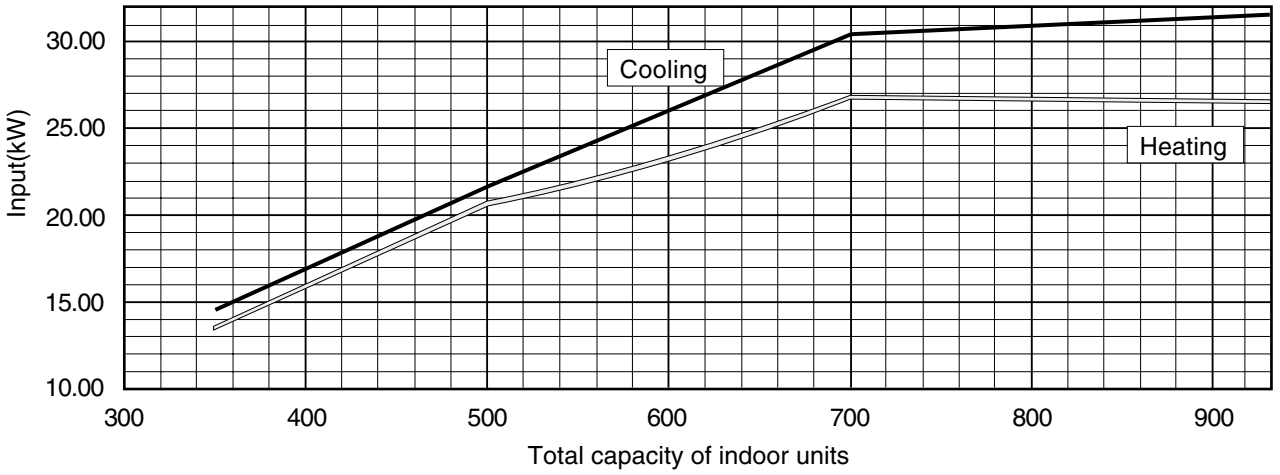


PUHY-P700YSMF-B

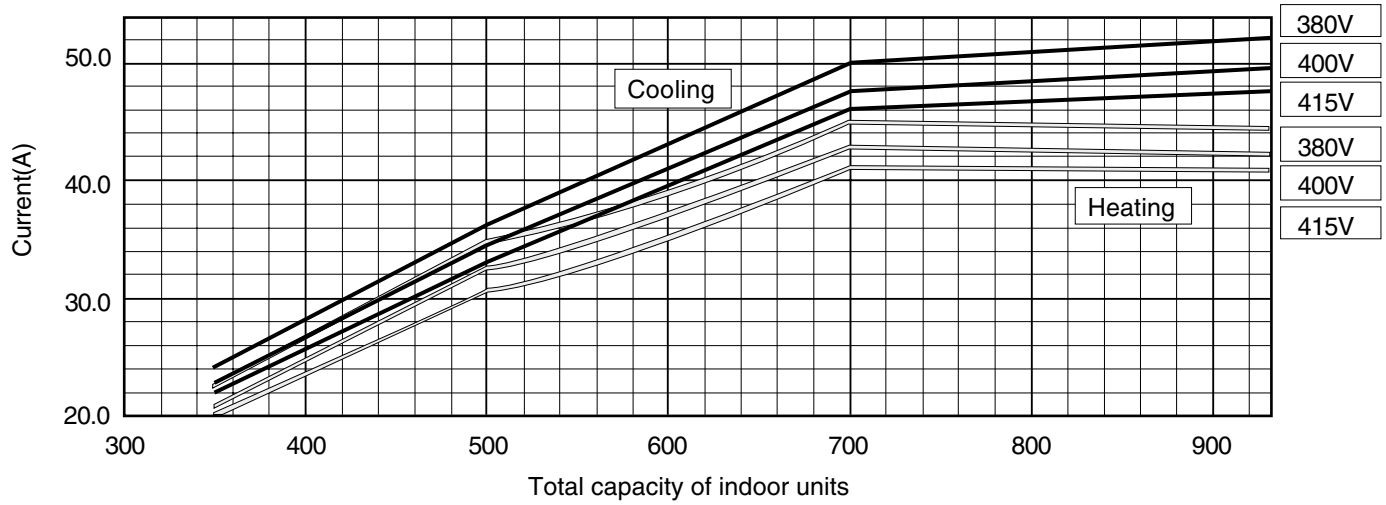
1) Capacity



2) Input

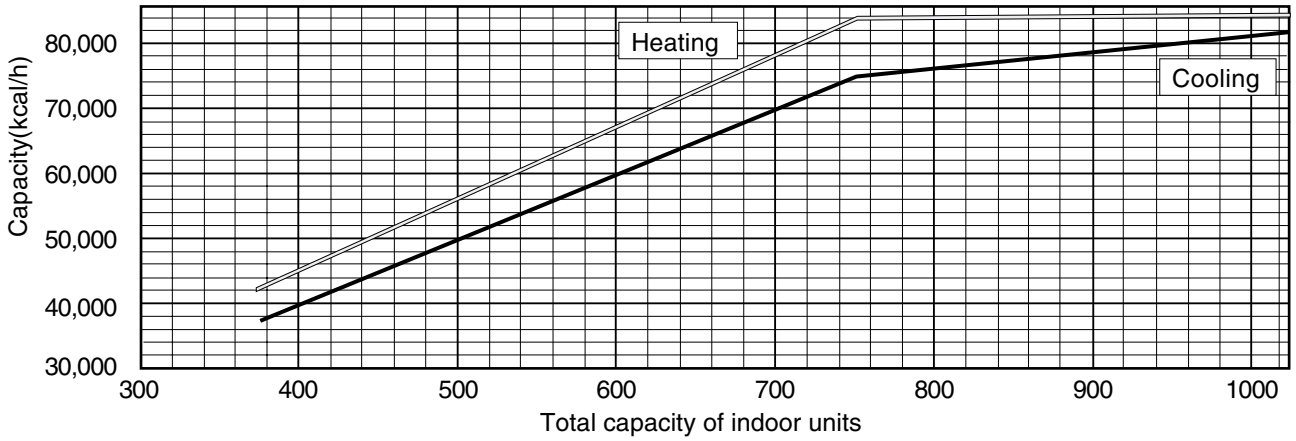


3) Current

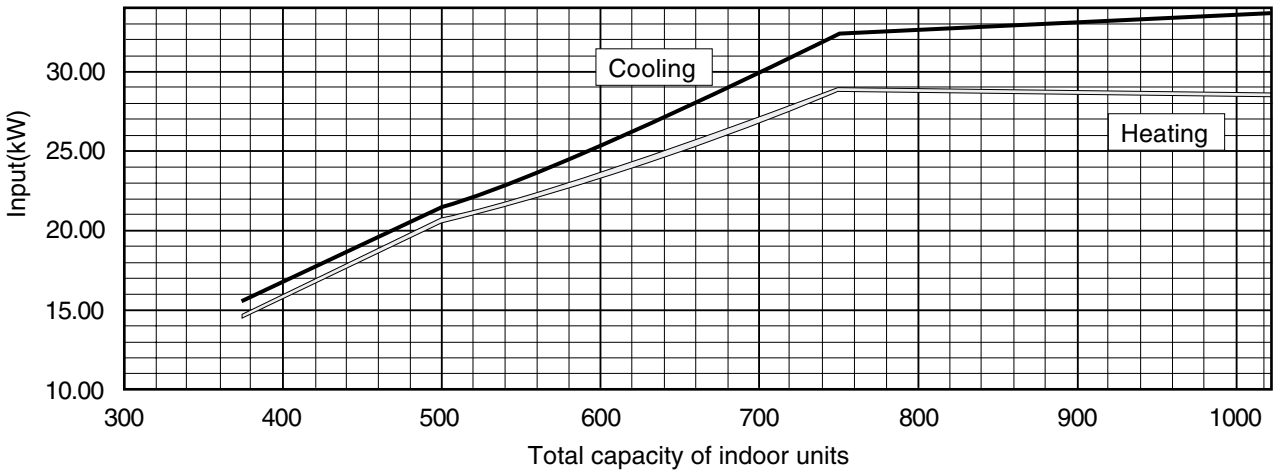


PUHY-P750YSMF-B

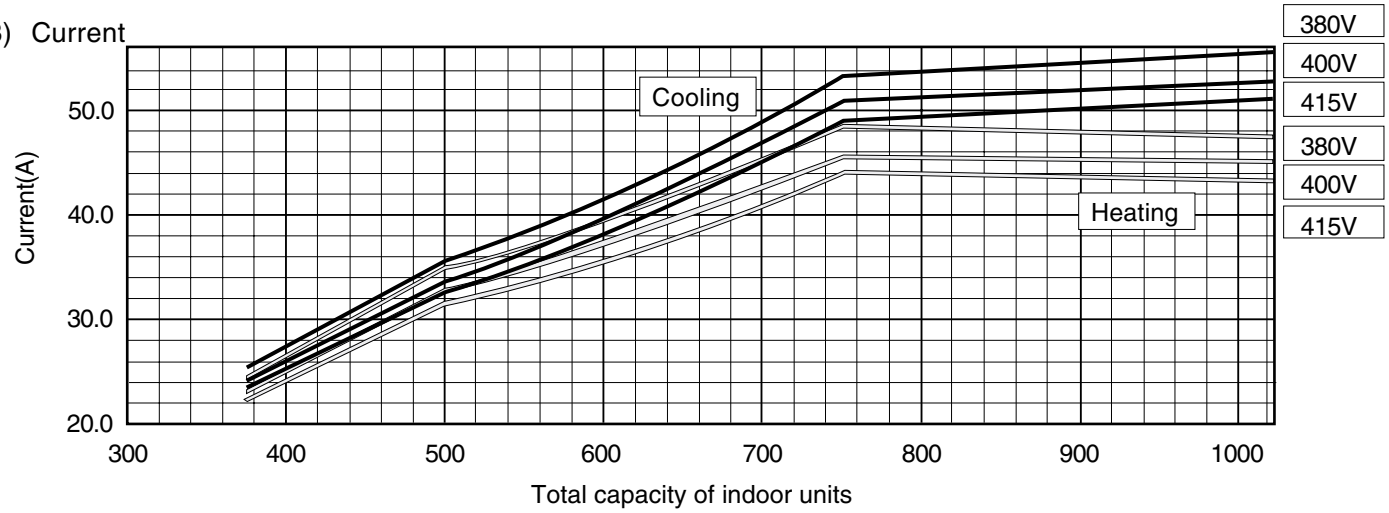
1) Capacity



2) Input



3) Current

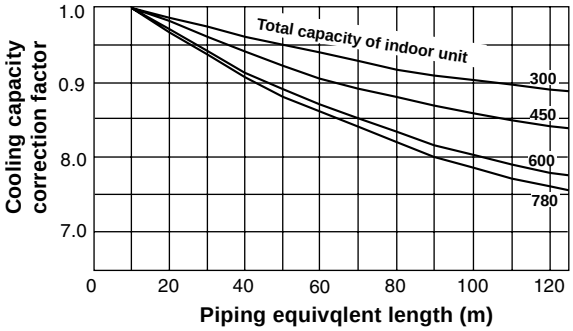


2-3 Correction by refrigerant piping length

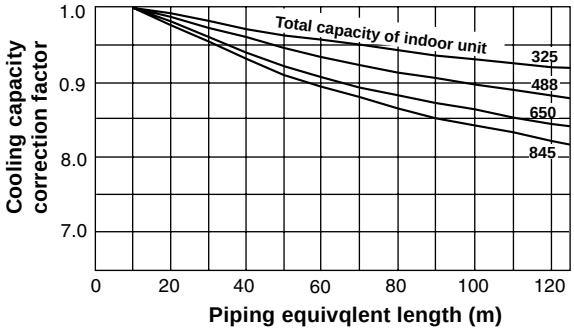
To obtain a decrease in cooling/heating capacity due to refrigerant piping extension, multiply by the capacity correction factor based on the refrigerant piping equivalent length in the table below.

• Cooling capacity correction

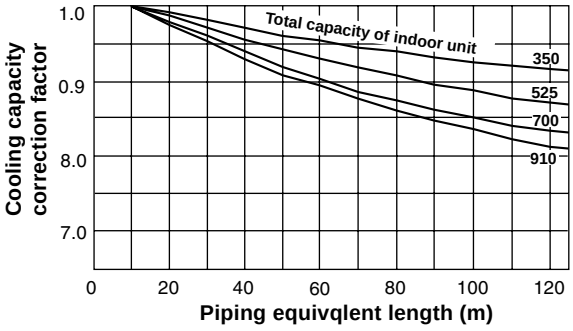
PUHY-P600YSMF-B



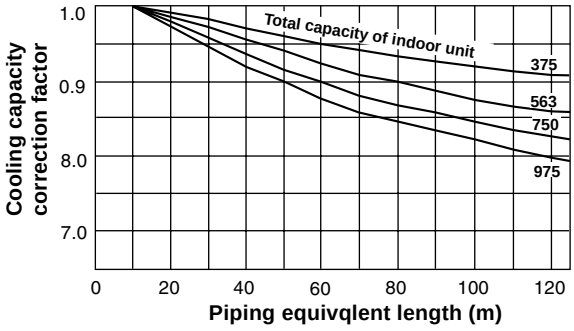
PUHY-P650YSMF-B



PUHY-P700YSMF-B

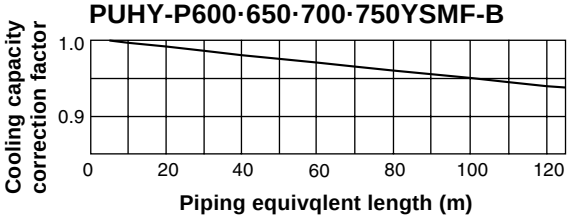


PUHY-P750YSMF-B



•Heating capacity correction

PUHY-P600·650·700·750YSMF-B



• How to obtain piping equivalent length

① **PUHY-P600YSMF-B**

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.80 × number of bent on the piping)m

② **PUHY-P650 ~ 750YSMF-B**

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.95 × number of bent on the piping)m

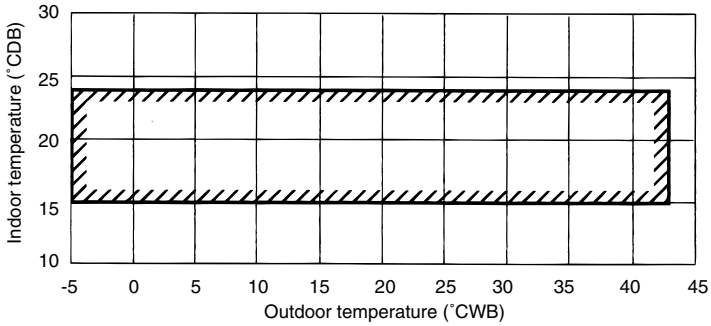
2-4 Correction at frosting and defrosting

When a decrease in heating capacity due to frosted and defrosting operations is considered, the value multiplied by the correction factor in the table below represents the heating capacity.

Outdoor inlet air temp (˚CWB)	6	4	2	0	-2	-4	-6	-8	-10
Correction factor	1.0	0.98	0.89	0.89	0.90	0.92	0.95	0.95	0.95

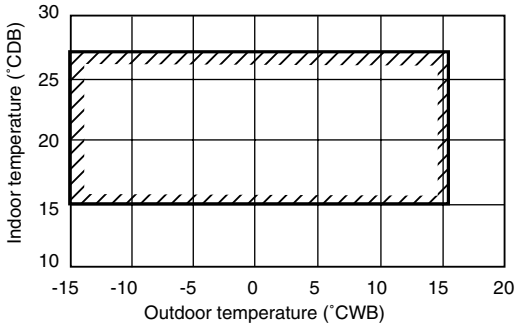
2-5 Operation limit

• Cooling



When the indoor unit is located above the outdoor unit for 4m or more, or indoor unit 20 or 25type only is working, the outdoor unit inlet air temperature becomes 10~43˚CDB.

• Heating

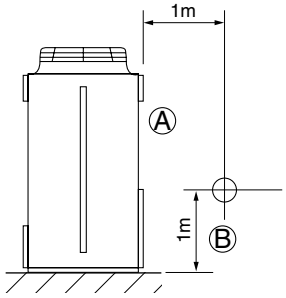


When the indoor unit 20 or 25type only is working, the outdoor unit inlet air temperature becomes -15~10˚CWB.

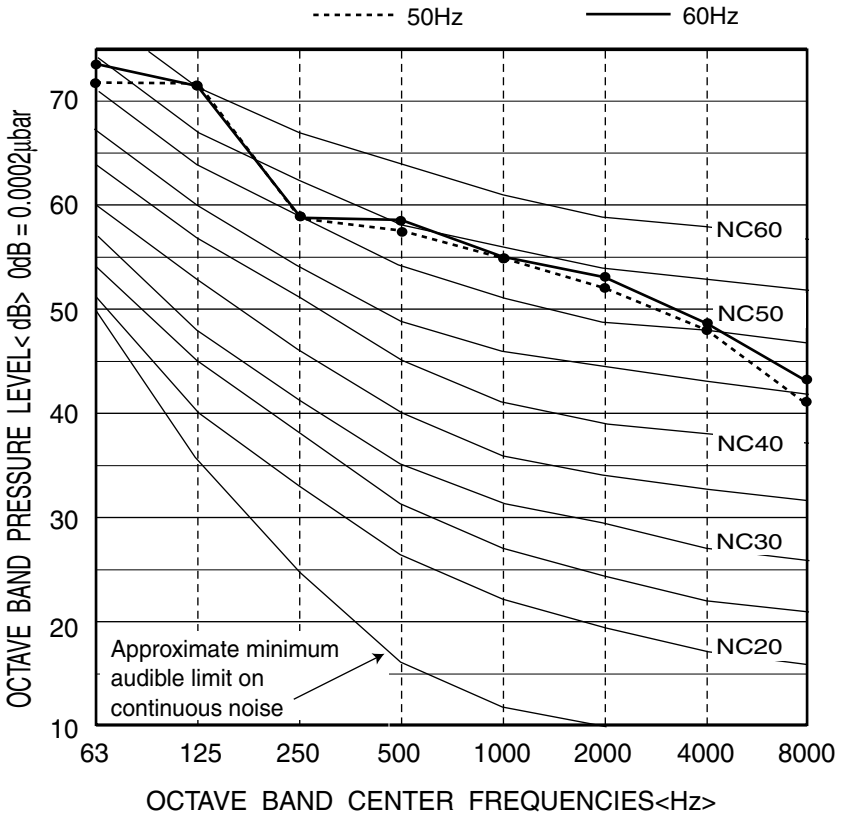
3. Sound levels

PUHY-P600YSMF-B

Measurement condition

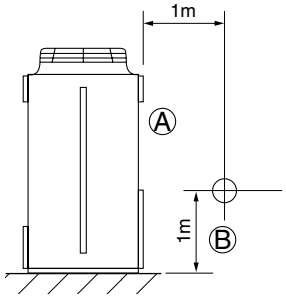


Sound pressure level in anechoic room
61.5 / 62.0 dB (A)

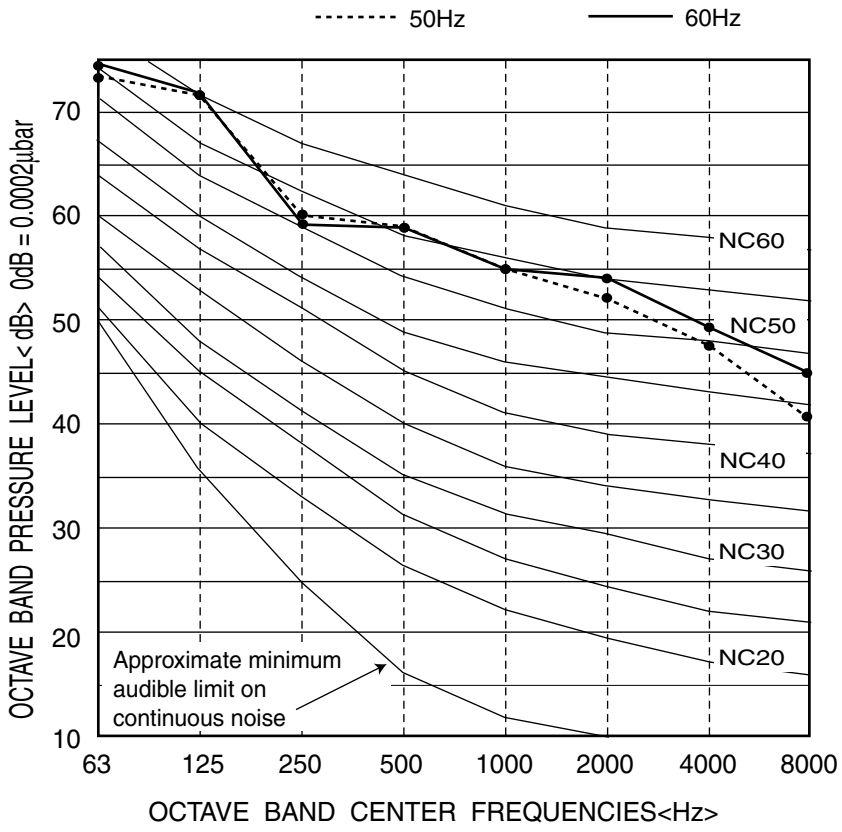


PUHY-P650YSMF-B

Measurement condition

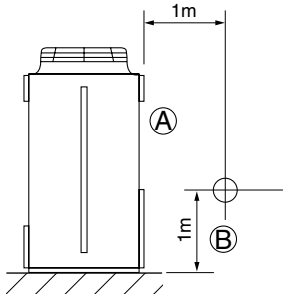


Sound pressure level in anechoic room
62.0 / 62.5 dB (A)

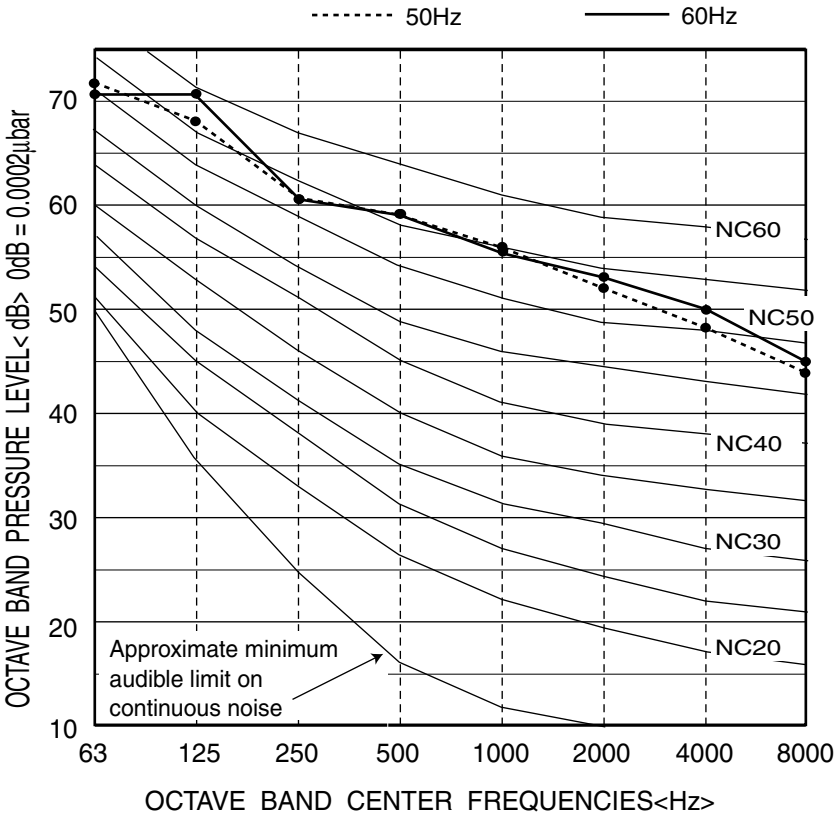


PUHY-P700YSMF-B

Measurement condition

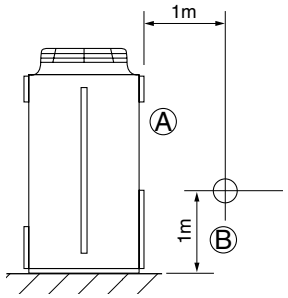


Sound pressure level in anechoic room
61.5 / 62.0 dB (A)

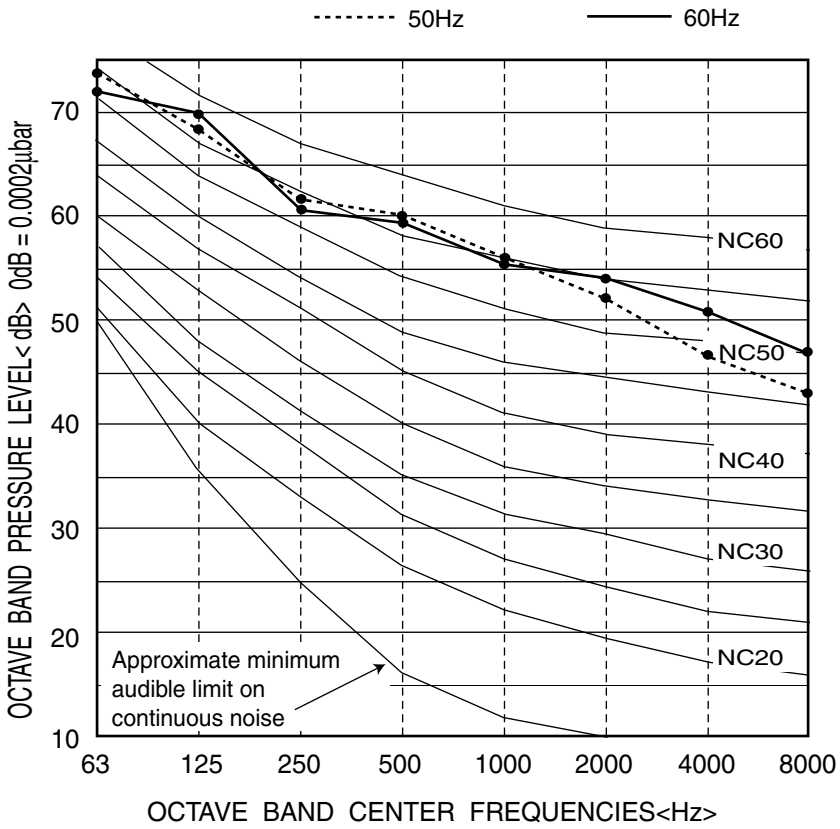


PUHY-P750YSMF-B

Measurement condition



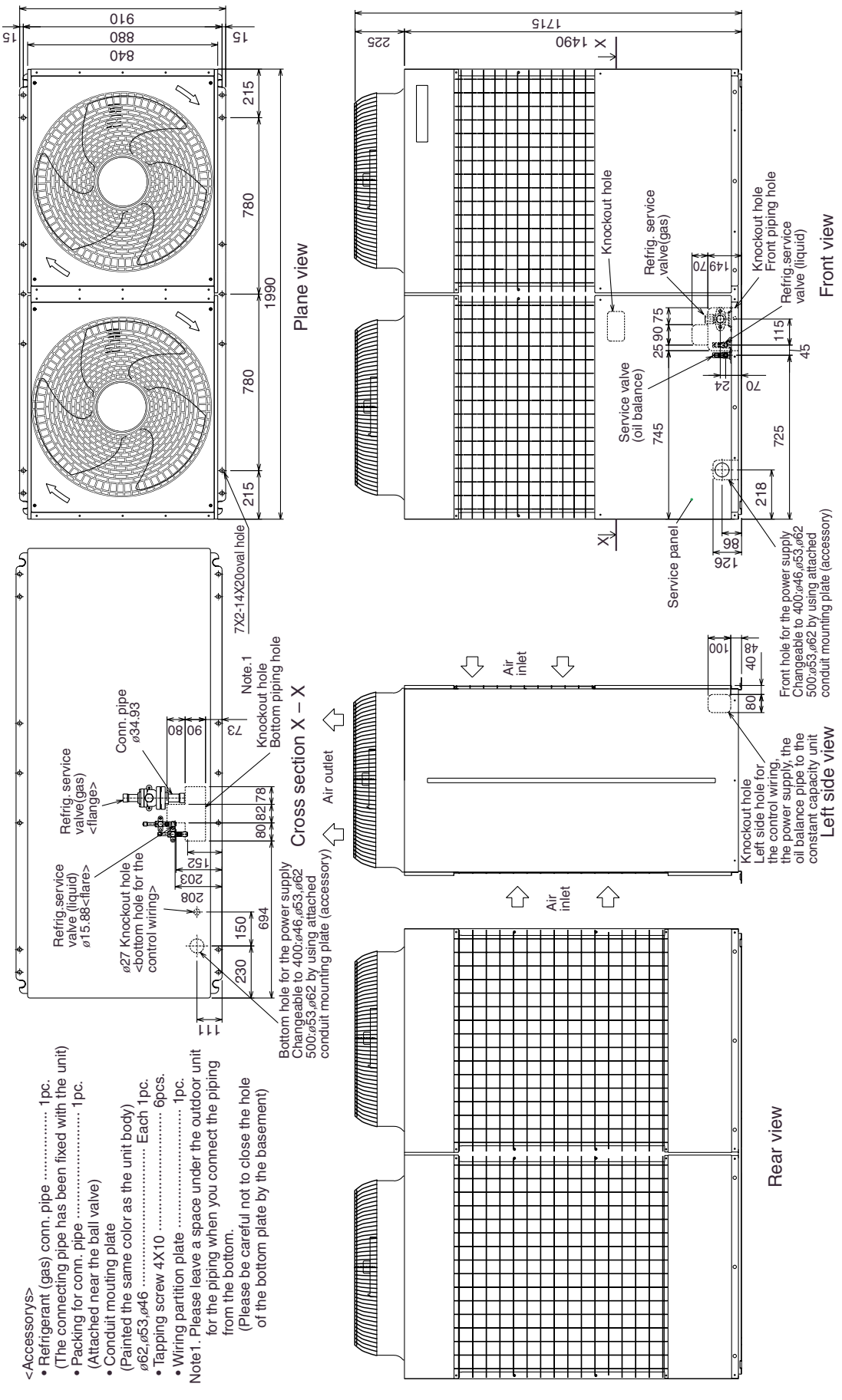
Sound pressure level in anechoic room
62.0 / 62.5 dB (A)



4. External dimensions

PUHY-P400,500YMF-B

Unit : mm

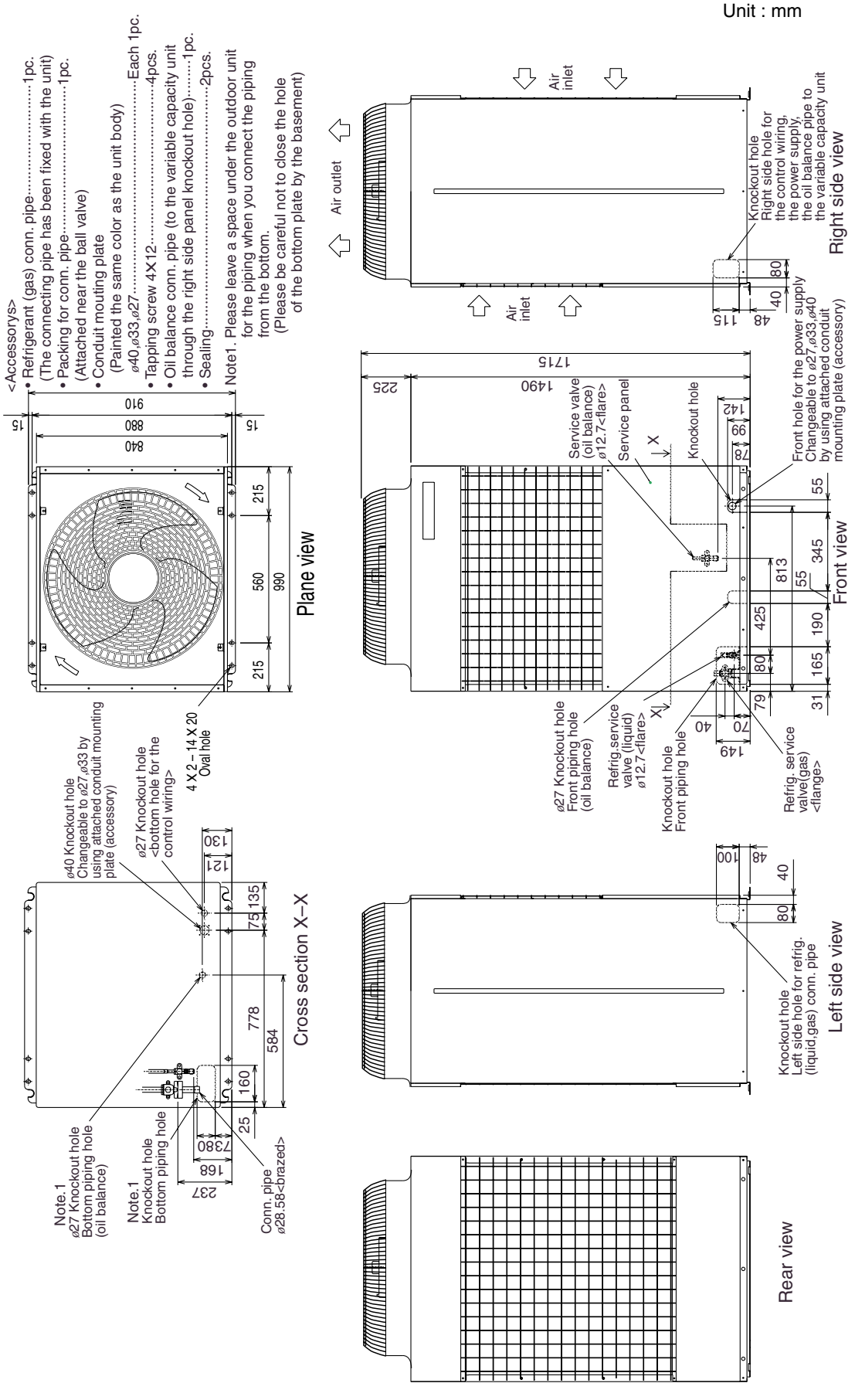


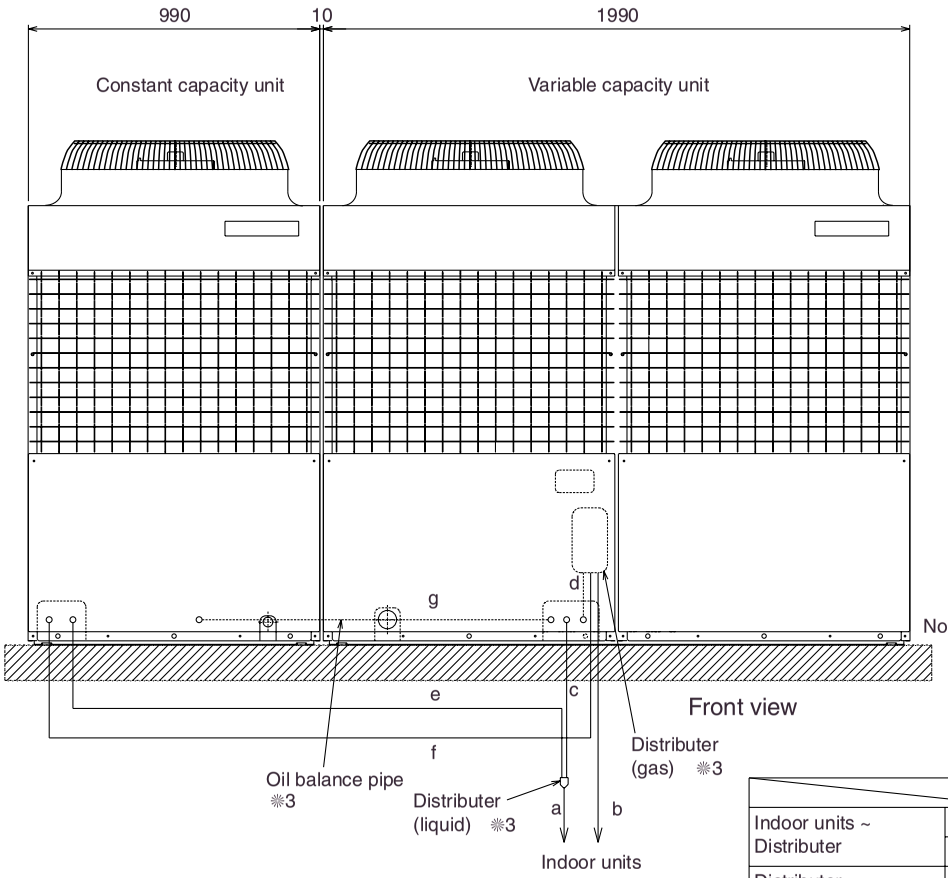
<Accessorys>
- Refrigerant (gas) conn. pipe ..... 1pc. (The connecting pipe has been fixed with the unit)
- Packing for conn. pipe ..... 1pc. (Attached near the ball valve)
- Conduit mouting plate (Painted the same color as the unit body) ø62,ø53,ø46 ..... Each 1pc.
- Tapping screw 4X10 ..... 6pcs.
- Wiring partition plate ..... 1pc.

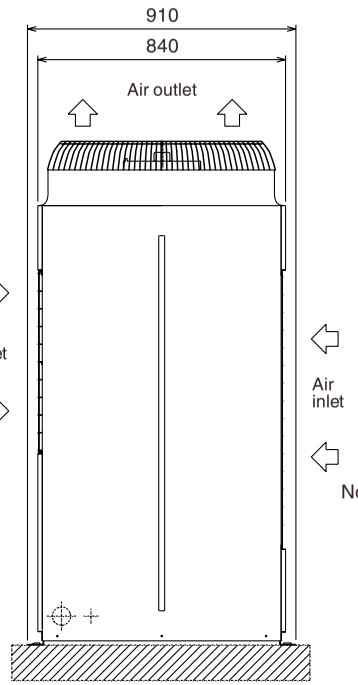
Note1. Please leave a space under the outdoor unit for the piping when you connect the piping from the bottom. (Please be careful not to close the hole of the bottom plate by the basement)

PUHN-P200, 250YMF-B

Unit : mm


<Accessorys>
• Refrigerant (gas) conn. pipe.....1pc.
(The connecting pipe has been fixed with the unit)
• Packing for conn. pipe.....1pc.
(Attached near the ball valve)
• Conduit mouting plate
(Painted the same color as the unit body)
ø40,ø33,ø27.....Each 1pc.
• Tapping screw 4X12.....4pcs.
• Oil balance conn. pipe (to the variable capacity unit through the right side panel knockout hole).....1pc.
• Sealing.....2pcs.
Note1. Please leave a space under the outdoor unit for the piping when you connect the piping from the bottom.
(Please be careful not to close the hole of the bottom plate by the basement)
Plane view
Cross section X–X
Rear view
Left side view
Front view
Right side view
Air outlet
Air inlet
Air inlet
Knockout hole
Right side hole for the control wiring, the power supply, the oil balance pipe to the variable capacity unit
Front hole for the power supply
Changeable to ø27,ø33,ø40 by using attached conduit mounting plate (accessory)
Service valve (oil balance) ø12.7<flare>
Service panel
Knockout hole
ø27 Knockout hole Front piping hole (oil balance)
Refrig.service valve (liquid) ø12.7<flare>
Knockout hole Front piping hole
Refrig. service valve(gas) <flange>
Knockout hole Left side hole for refrig. (liquid,gas) conn. pipe
4 X 2 – 14 X 20 Oval hole
ø40 Knockout hole Changeable to ø27,ø33 by using attached conduit mounting plate (accessory)
ø27 Knockout hole <bottom hole for the control wiring>
Note.1 ø27 Knockout hole Bottom piping hole (oil balance)
Note.1 Knockout hole Bottom piping hole
Conn. pipe ø28.58<brazed>





Note 1. Please install the constant capacity unit and the variable capacity unit on a same level stand.
2. Pipe size is as follws.
3. Please install the constant capacity unit and the variable capacity unit side by side, the constant capacity unit on the left side and the variable capacity unit on the right side.
4. Optional kits(CMC-30A) is needed to compose PUHY-P600~750YSMF-B.

			600	650	700	750
Indoor units ~ Distributer	liquid	a	ø19.05			
	gas	b	ø34.93	ø41.28		
Distributer ~ Variable capacity unit	liquid	c	ø15.88			
	gas	d	ø34.93 ※1			
Distributer ~ Constant capacity unit	liquid	e	ø12.7			
	gas	f	ø28.58			
Oil balance pipe		g	ø12.7 ※2			

※1 This pipe has been fixed.
※2 The oil balance pipe is usually fixed inside of the unit.
※3 Option (CMC-30A)

Unit : mm

5. Electrical Wiring Diagram

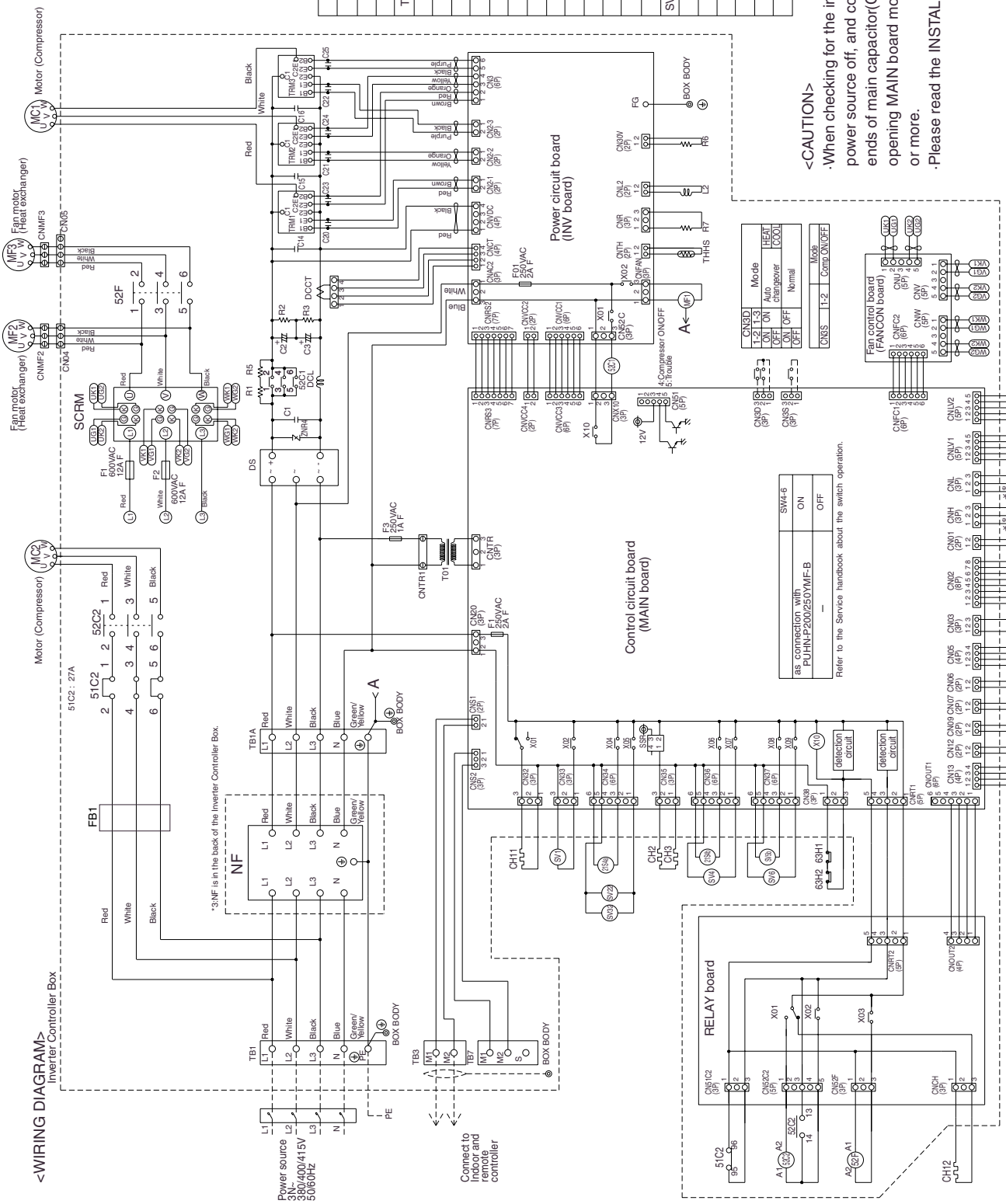
PUHY-P400·500YMF-B

<SYMBOL EXPLANATION>

Symbol	Name
TB1, 1A, 3,7	Terminal block
DS	Diode stack
NF	Noise Filter
TH2~12, THHS	Thermistor
CH11,12	Crank case heater(Compressor)
CH2,CH3	Cord heater
63H1,2	High pressure switch
DCL	DC reactor (Power factor improvement)
DCCT	Current Sensor
ZNR4	Varistor
52C1	Magnetic contactor (Inverter main circuit)
52C2	Magnetic contactor
51C2	Overload Relay
52F	Magnetic contactor
MF1	Fan (Radiator panel)
SSR	Solid state relay
21S4a,b	4-way valve
SV1,22,32,4,5b,6	Solenoid valve
LEV1,SLEV	Electronic expansion valve
63HS,63LS	High pressure sensor
L2	Choke coil(Transmission)
TRM1~3	Power transistor module
FB1	Ferrite core
⏚	Earth terminal

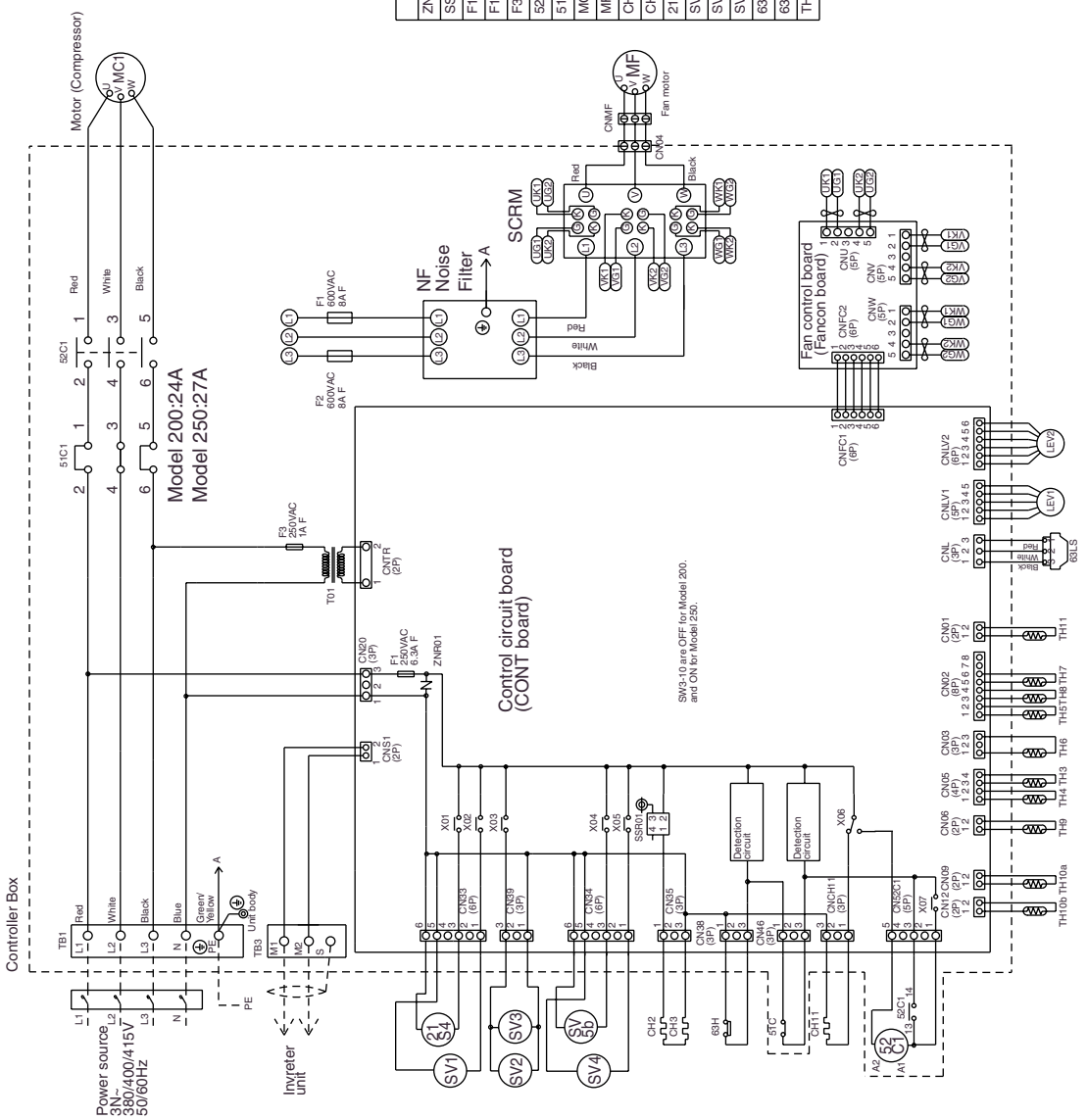
<CAUTION>
·When checking for the inside control box, be sure to turn the power source off, and confirm that the voltage at the both ends of main capacitor(C2,C3) is being sufficientry low by opening MAIN board mounting plate after leaving 10minutes or more.
·Please read the INSTALLATION MANUAL carefully.

<WIRING DIAGRAM>
Inverter Controller Box



Super Y(R407C)

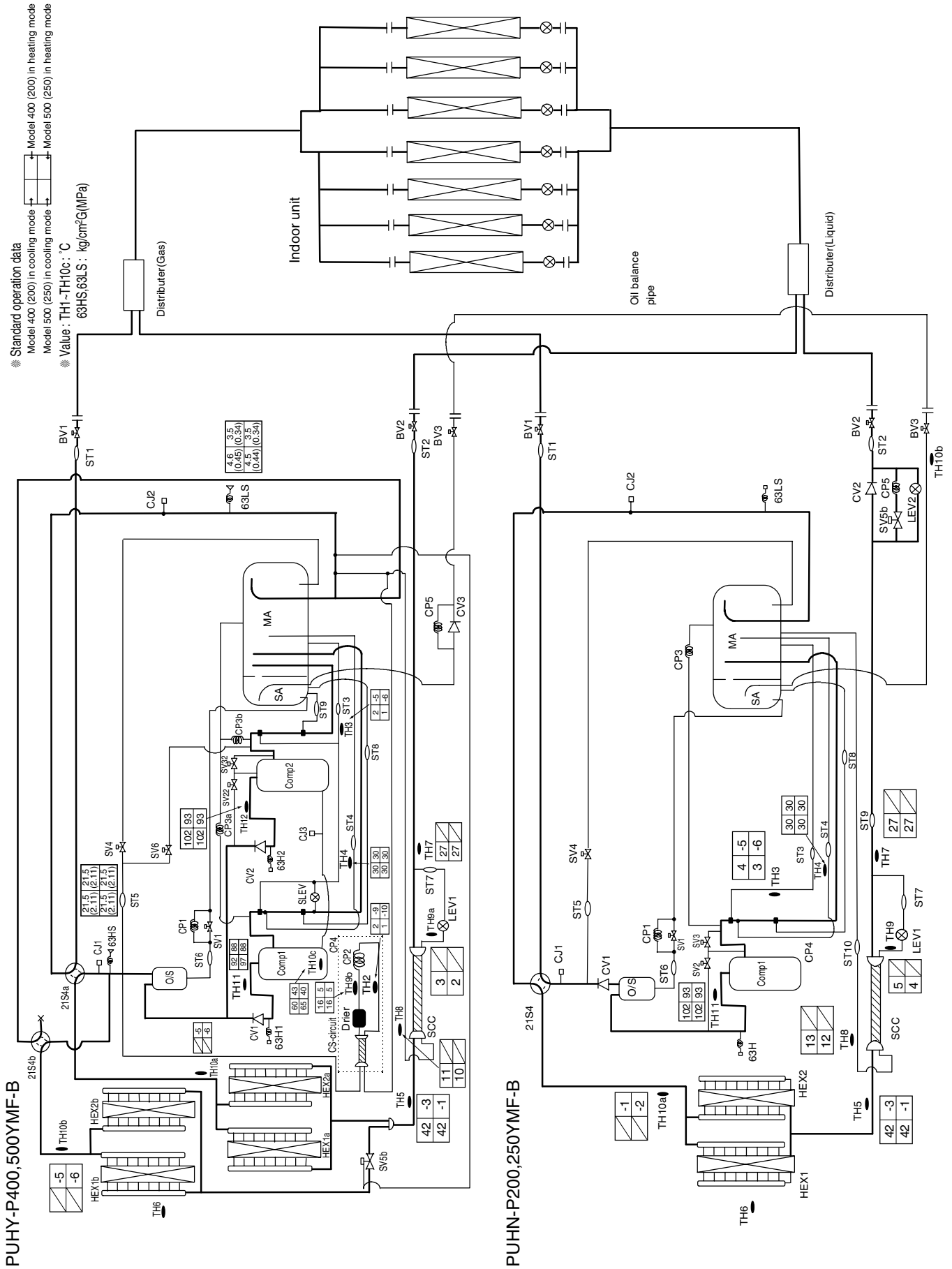
PUHN-P200·250YMF-B



SYMBOL	NAME
ZNR01	VARISTOR
SSR	SOLID STATE RELAY
F1	FUSE(6.3A)
F1,F2	FUSE(8A)
F3	FUSE(1A)
52C1	MAGNET CNTACTOR
51C1	OVER CURRENT RELAY
MC1	ELECTRIC MOTOR OF COMPRESSOR
MF	FAN MOTOR(HEAT EXCHANGER)
CH11	CRANK CASE HEATER(COMPRESSOR)
CH2,CH3	CORD HEATER
21S4	4-WAY VALVE
SV1,SV4	SORENOID VALVE
SV5b	SORENOID VALVE
SV2,SV3	SORENOID VALVE
63H	HIGH PRESSURE CUT OUT SWITCH
63LS	LOW SIDE PRESSURE SENSOR
TH11	THERMISTER

SYMBOL	NAME
TH3	THERMISTER
TH4	THERMISTER
TH5	THERMISTER
TH6	THERMISTER
TH7	THERMISTER
TH8	THERMISTER
TH9	THERMISTER
TH10a	THERMISTER
TH10b	THERMISTER
LEV1	ELECTRONIC EXPANSION VALVE
LEV2	ELECTRONIC EXPANSION VALVE
X01~X07	RELAY
SW2,SW3	SWITCH
SWU1,2	SWITCH
TB1	POWER SOURCE TERMINAL BLOCK
⏚	EARTH TERMINAL

6. Refrigerant circuit diagram and Thermal sensor



PURY-P200YMF-C, PURY-P250YMF-C

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1. Specifications

Model name			PURY-P200YMF-C	
			Cooling	Heating
Capacity		kW	∗1 22.4	25.0
		kcal/h	∗2 20,000	-
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	8.64	7.98
Current		A	14.5/13.8/13.3	13.4/12.7/12.3
Fan	Type× Quantity		Propeller fan× 1	
	Airflow rate	m^3/min	185	
	Motor output	kW	0.38	
Compressor	Type		Hermetic	
	Motor output	kW	5.5	
	Crankcase heater	kW	0.062(240V)	
Refrigerant / Lubricant			R407C/MEL32	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
External dimension		mm	1715(H)× 990(W)× 840(L)	
Protection devices	High pressure protection		2.94MPa	
	Compressor / Fan		Over current protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	
Refrigerant piping diameter		High press. / Low press.	ø 19.05 flare / ø 25.4 Flange	
Indoor unit	Total capacity		50 ~ 150% of outdoor unit capacity	
	Model / Quantity		Model 20~ 250 / 1~ 15	
Noise level		dB<A>	56	
Net weight		kg	241	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB ~ 15.5˚CWB
			※-5˚CDB/-6˚CWB ~ 21˚CDB/15.5˚CWB with cooling/heating mixed operation.	

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

∗1 **Cooling** Indoor : 27˚CDB/19˚CWB Outdoor : 35˚CDB
Heating Indoor : 20˚CDB Outdoor : 7˚CDB/6˚CWB
Pipe length : 7.5m Height difference : 0m

∗2 **Cooling** Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB
Pipe length : 5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

R2(R407C)

Model name			PURY-P250YMF-C	
			Cooling	Heating
Capacity		kW	∗1 28.0	31.5
		kcal/h	∗2 25,000	-
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	10.89	10.15
Current		A	18.3/17.4/16.8	17.1/16.2/15.6
Fan	Type× Quantity		Propeller fan× 1	
	Airflow rate	m^3/min	185	
	Motor output	kW	0.38	
Compressor	Type		Hermetic	
	Motor output	kW	7.5	
	Crankcase heater	kW	0.062(240V)	
Refrigerant / Lubricant			R407C/MEL32	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
External dimension		mm	1715(H)× 990(W)× 840(L)	
Protection devices	High pressure protection		2.94MPa	
	Compressor / Fan		Over current protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	
Refrigerant piping diameter		High press. / Low press.	ø 19.05 flare / ø 28.58 Flange	
Indoor unit	Total capacity		50 ~ 150% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 250 / 1 ~ 16	
Noise level		dB<A>	57	
Net weight		kg	247	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB ~ 15.5˚CWB
			※-5˚CDB/-6˚CWB ~ 21˚CDB/15.5˚CWB with cooling/heating mixed operation.	

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

∗1 **Cooling** Indoor : 27˚CDB/19˚CWB Outdoor : 35˚CDB
Heating Indoor : 20˚CDB Outdoor : 7˚CDB/6˚CWB
Pipe length : 7.5m Height difference : 0m

∗2 **Cooling** Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB
Pipe length : 5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

2. Capacity tables

2-1. Correction by temperature

Cooling

• Standard Specifications

		PURY-P200YMF-C	PURY-P250YMF-C
Capacity	kW	22.4	28.0
Input	kW	8.64	10.89
Source	V	380/400/415	
Current	A	14.5/13.8/13.3	18.3/17.4/16.8

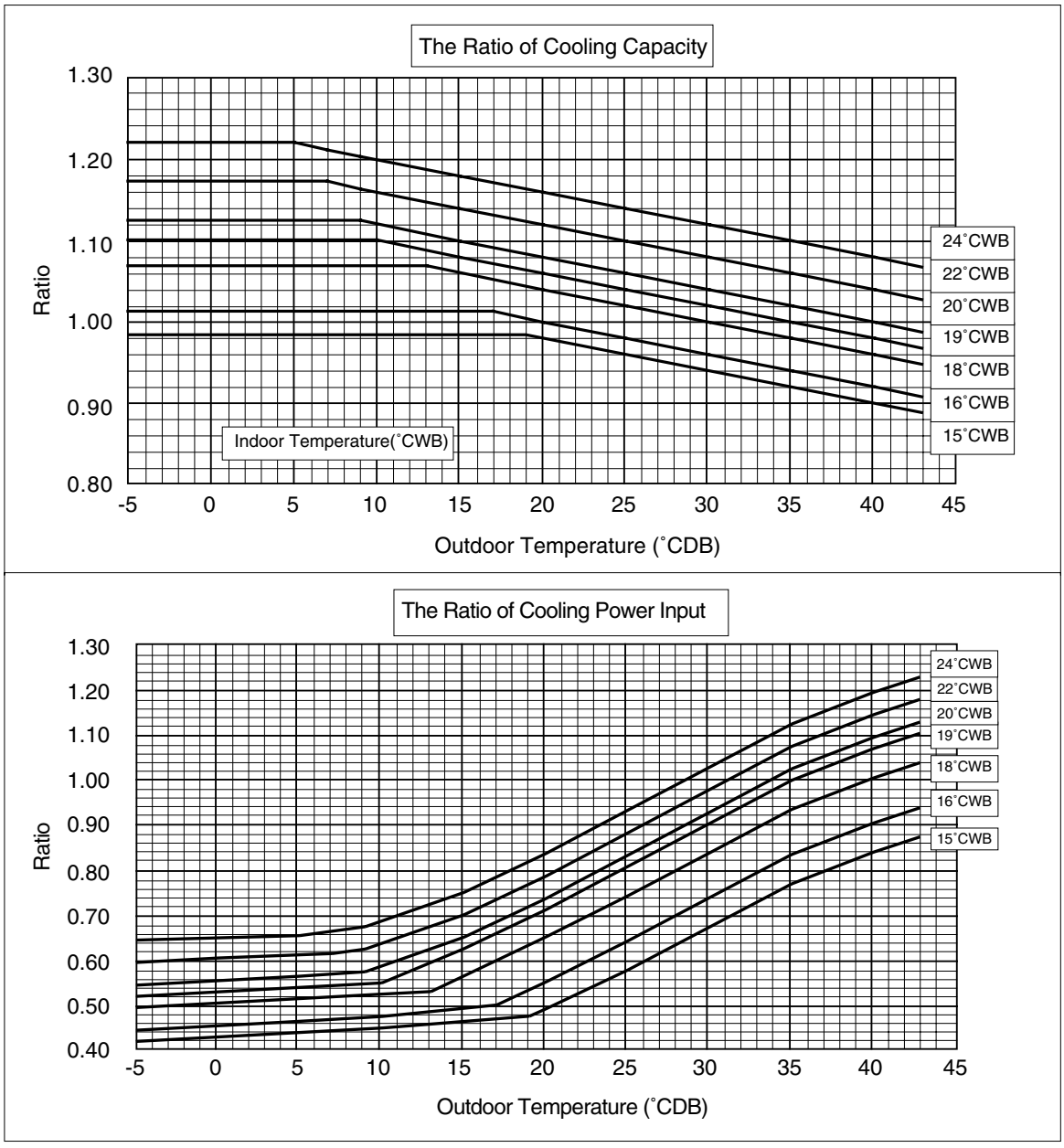
• Calculation

$$\text{Capacity}' = \text{Capacity} \times \text{Ratio}$$

$$\text{Input}' = \text{Input} \times \text{Ratio}$$

$$\text{Current}' = \frac{\text{Input}' \times 1000}{\sqrt{3} \times \text{Source} \times 0.90}$$

※ Capacity', Input', Current' — After correction



Heating

• Standard Specifications

		PURY-P200YMF-C	PURY-P250YMF-C
Capacity	kW	25.0	31.5
Input	kW	7.98	10.15
Source	V	380/400/415	
Current	A	13.4/12.7/12.3	17.1/16.2/15.6

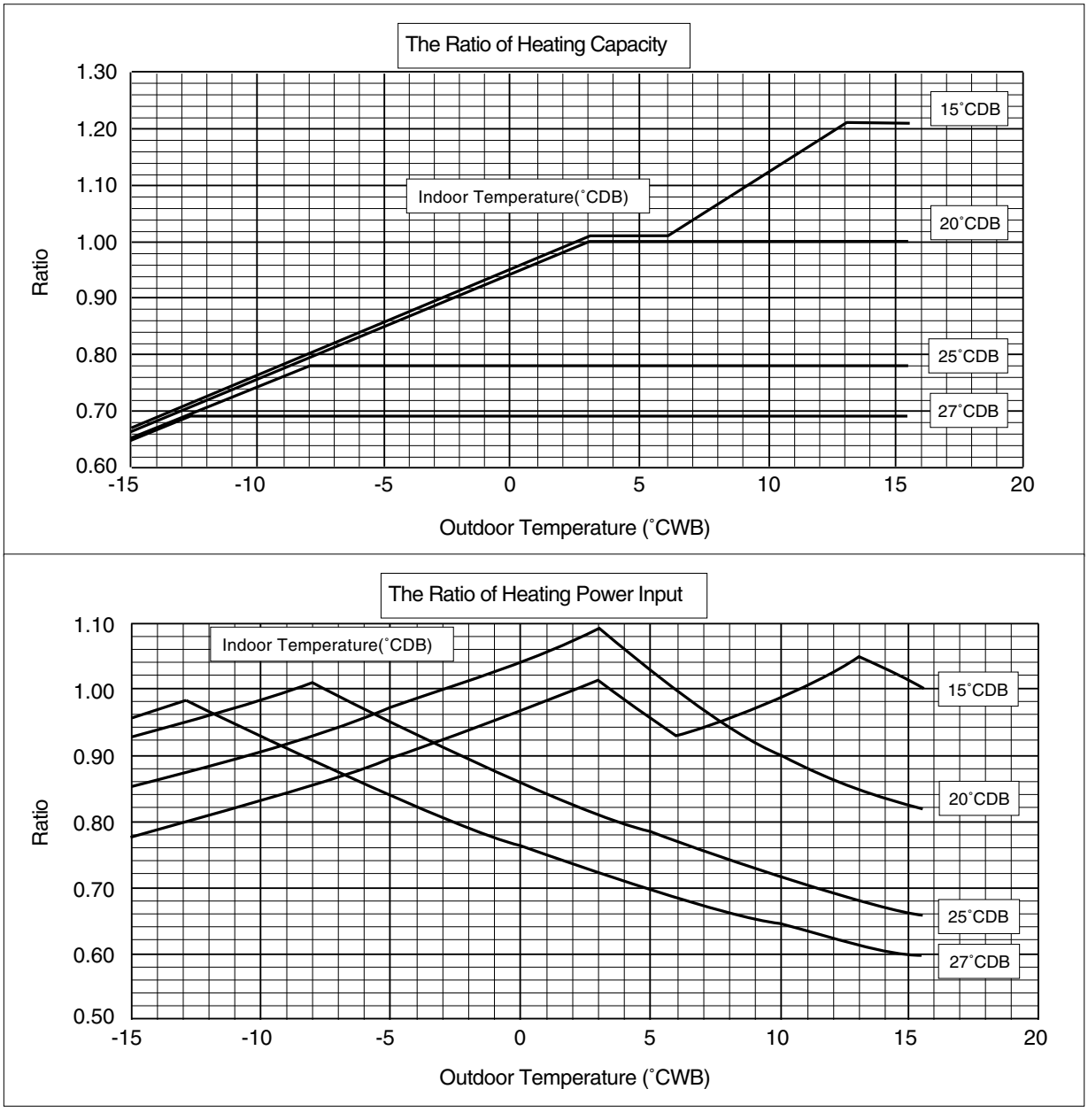
• Calculation

Capacity' = Capacity × Ratio

Input' = Input × Ratio

$$\text{Current}' = \frac{\text{Input}' \times 1000}{\sqrt{3} \times \text{Source} \times 0.90}$$

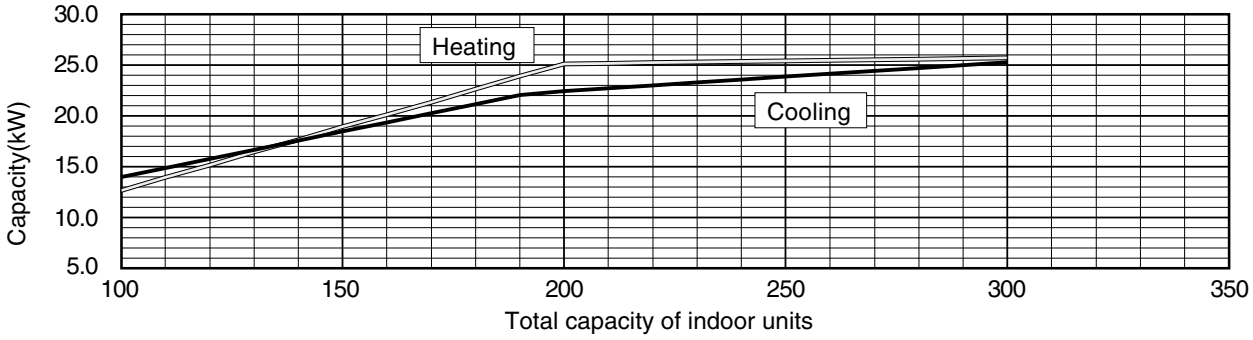
※Capacity'
Input'
Current'
} After correction



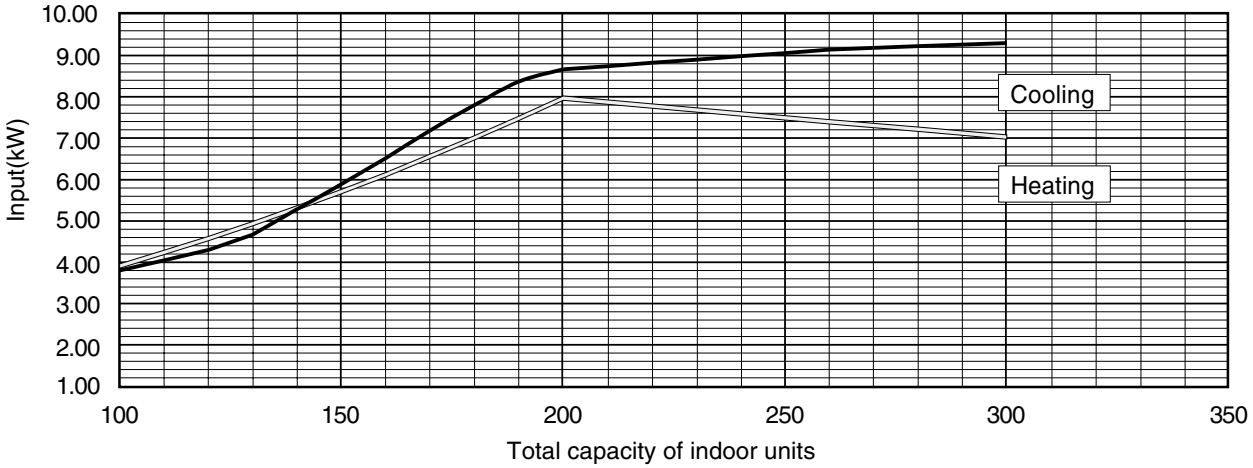
2-2. Correction by total indoor

PURY-P200YMF-C

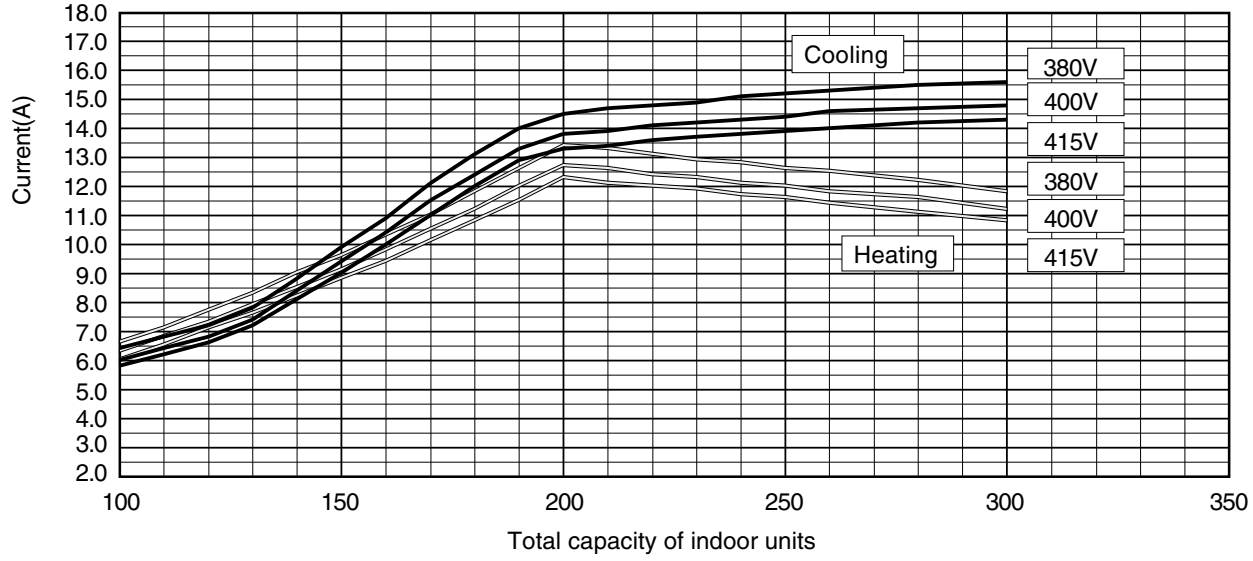
1) Capacity



2) Input



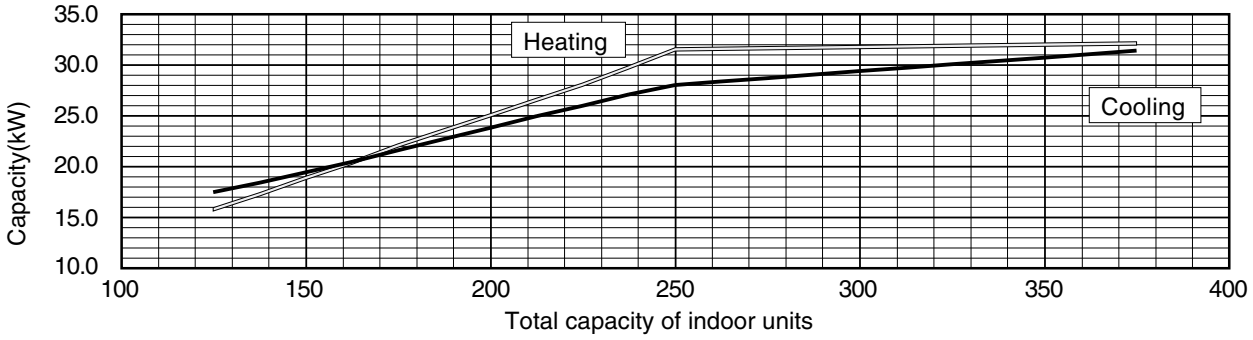
3) Current



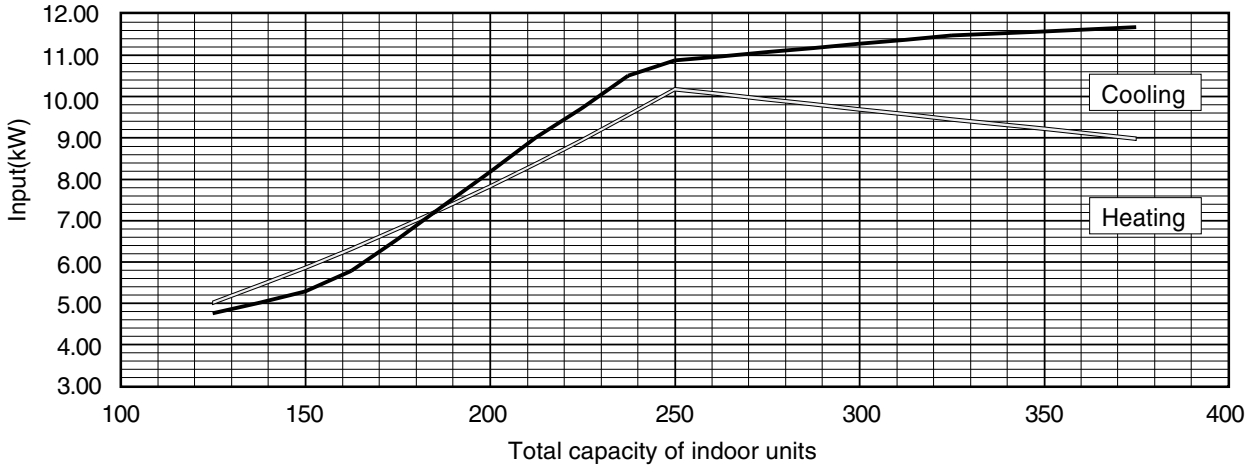
R2(R407C)

PURY-P250YMF-C

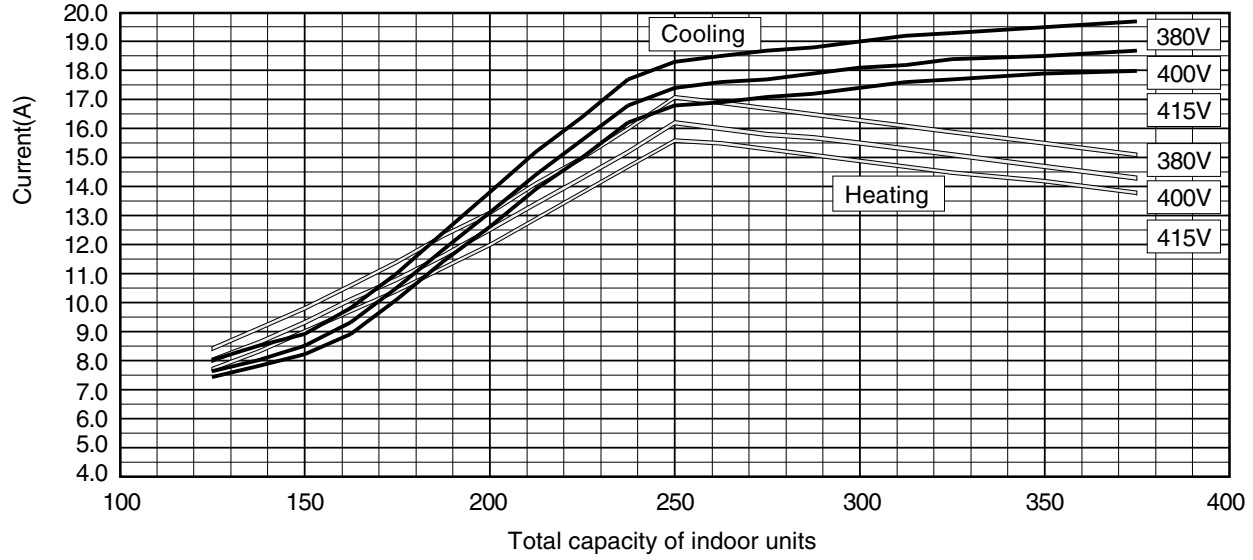
1) Capacity



2) Input



3) Current

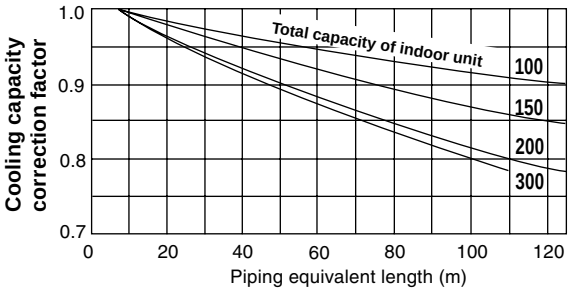


2-3 Correction by refrigerant piping length

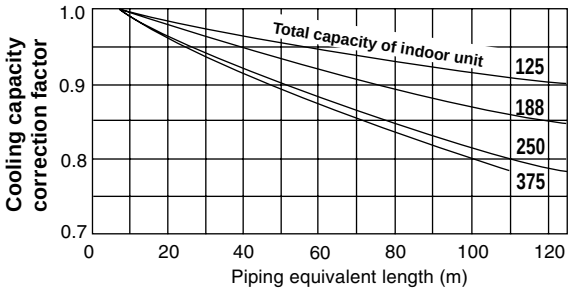
To obtain a decrease in cooling/heating capacity due to refrigerant piping extension, multiply by the capacity correction factor based on the refrigerant piping equivalent length in the table below.

• Cooling capacity correction

PURY-P200YMF-C

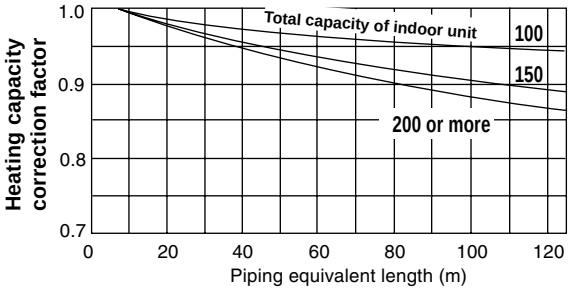


PURY-P250YMF-C

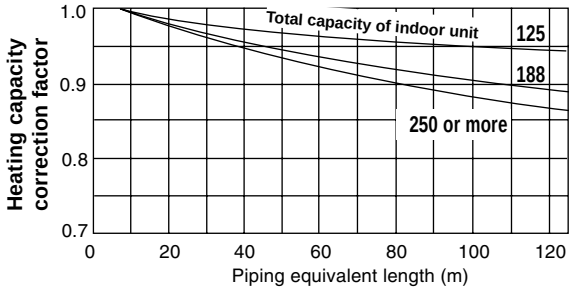


• Heating capacity correction

PURY-P200YMF-C



PURY-P250YMF-C



• How to obtain piping equivalent length

① **PURY-P200YMF-C**

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.47 × number of bent on the piping)m

② **PURY-P250YMF-C**

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 × number of bent on the piping)m

R2(R407C)

2-4 Correction at frosting and defrosting

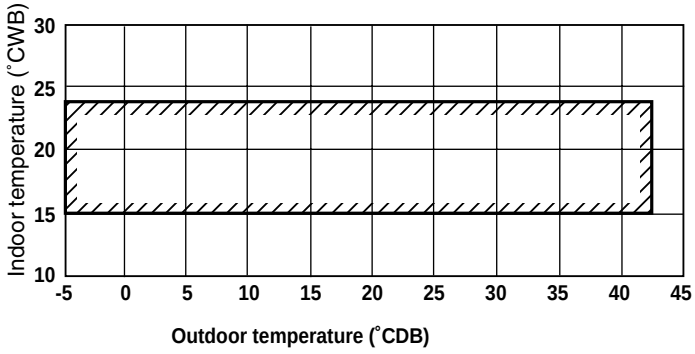
When a decrease in heating capacity due to frosted and defrosting operations is considered, the value multiplied by the correction factor in the table below represents the heating capacity.

Correction factor table

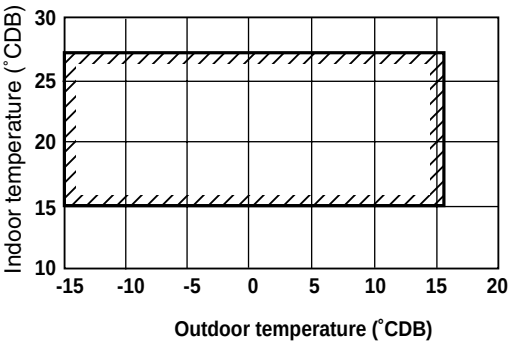
Outdoor inlet air temp (˚CWB)	6	4	2	0	-2	-4	-6	-8	-10
Correction factor	1.0	0.95	0.84	0.83	0.87	0.9	0.95	0.95	0.95

2-5 Operation limit

• Cooling



• Heating

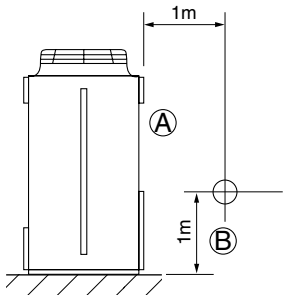


※ **Outdoor temperature : -5˚CDB/-6˚CWB ~ 21˚CDB/15.5˚CWB in cooling/heating mixed mode.**

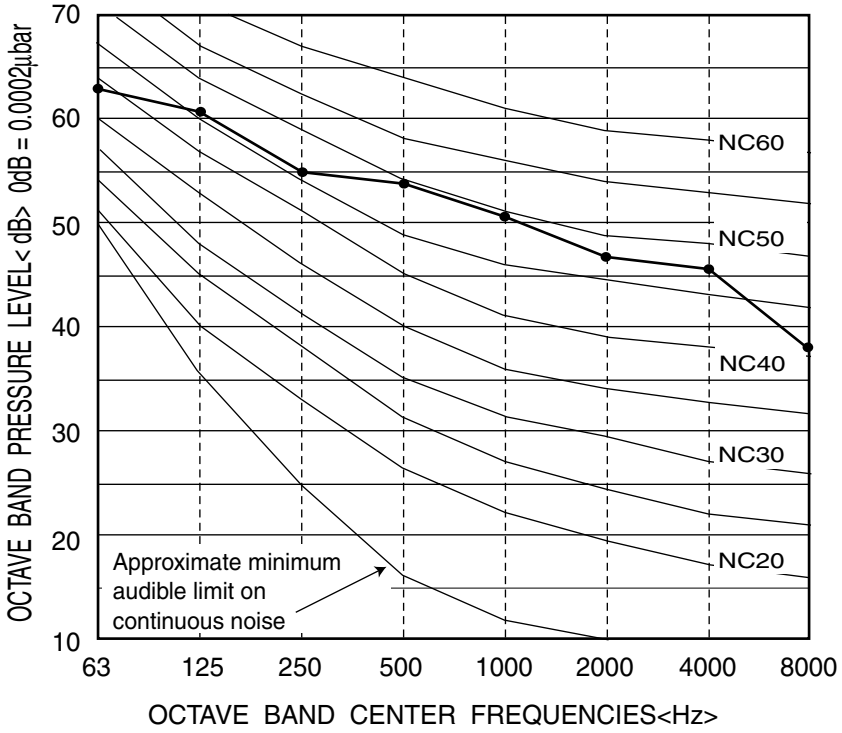
3. Sound levels

PURY-P200YMF-C

Measurement condition

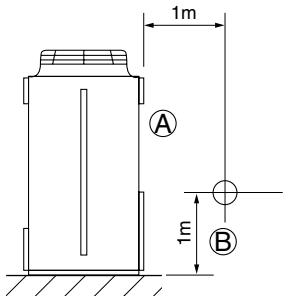


Sound pressure level in anechoic room
56 dB (A)

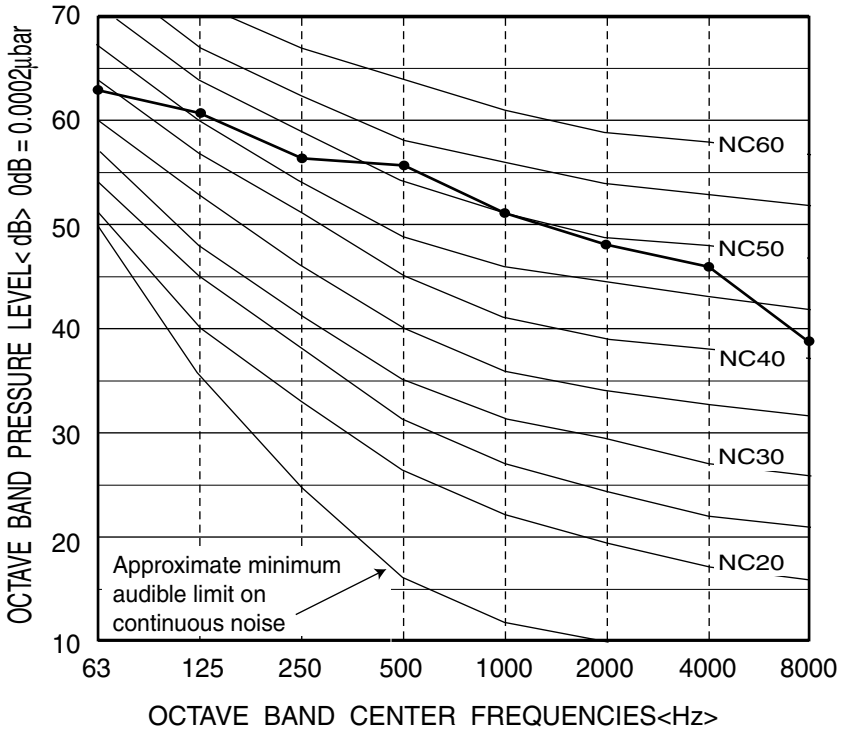


PURY-P250YMF-C

Measurement condition



Sound pressure level in anechoic room
57 dB (A)

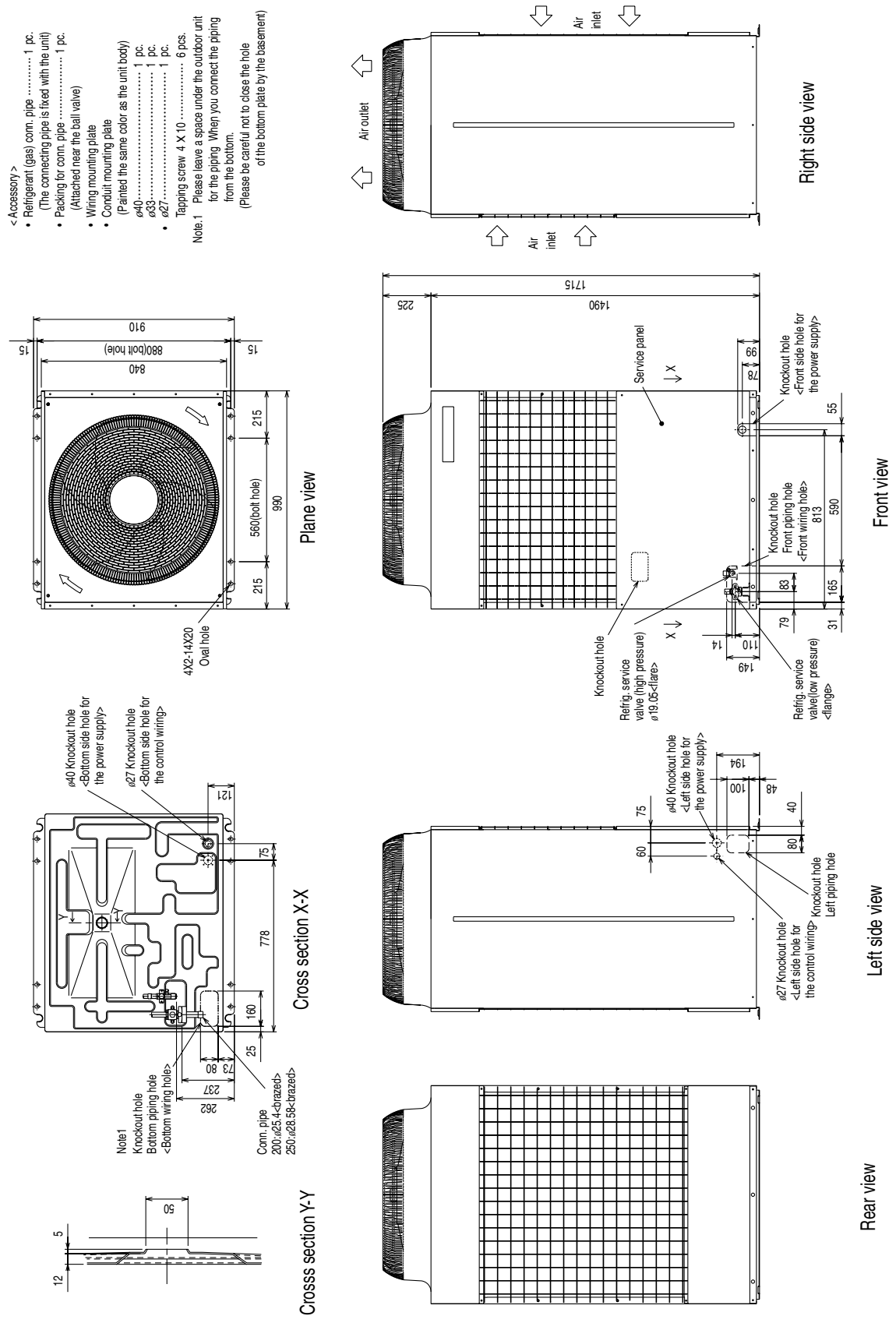


R2(R407C)

4. External dimensions

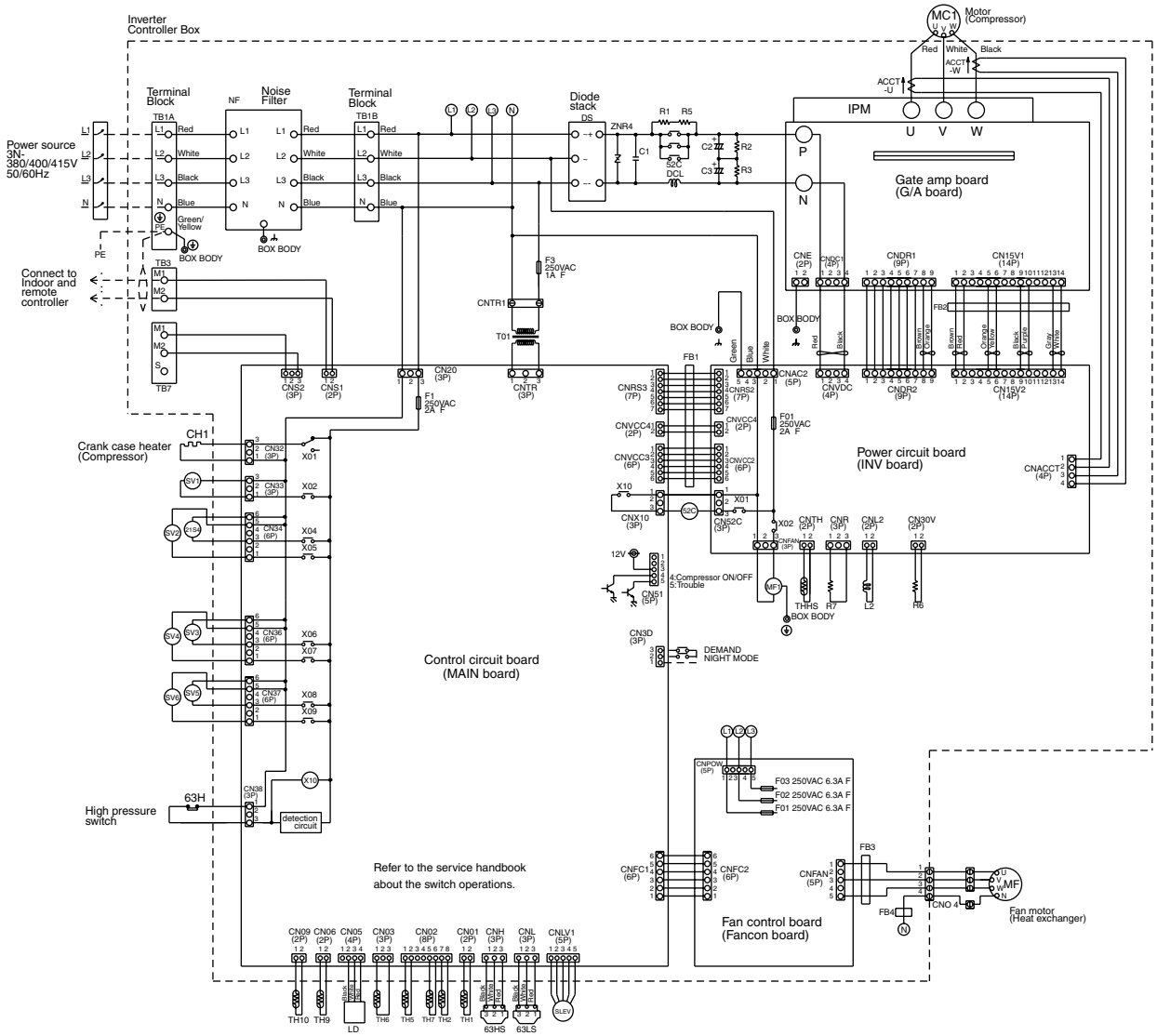
PURY-P200,250YMF-C

Unit : mm



5. Electrical Wiring Diagram

PURY-P200, 250YMF-C



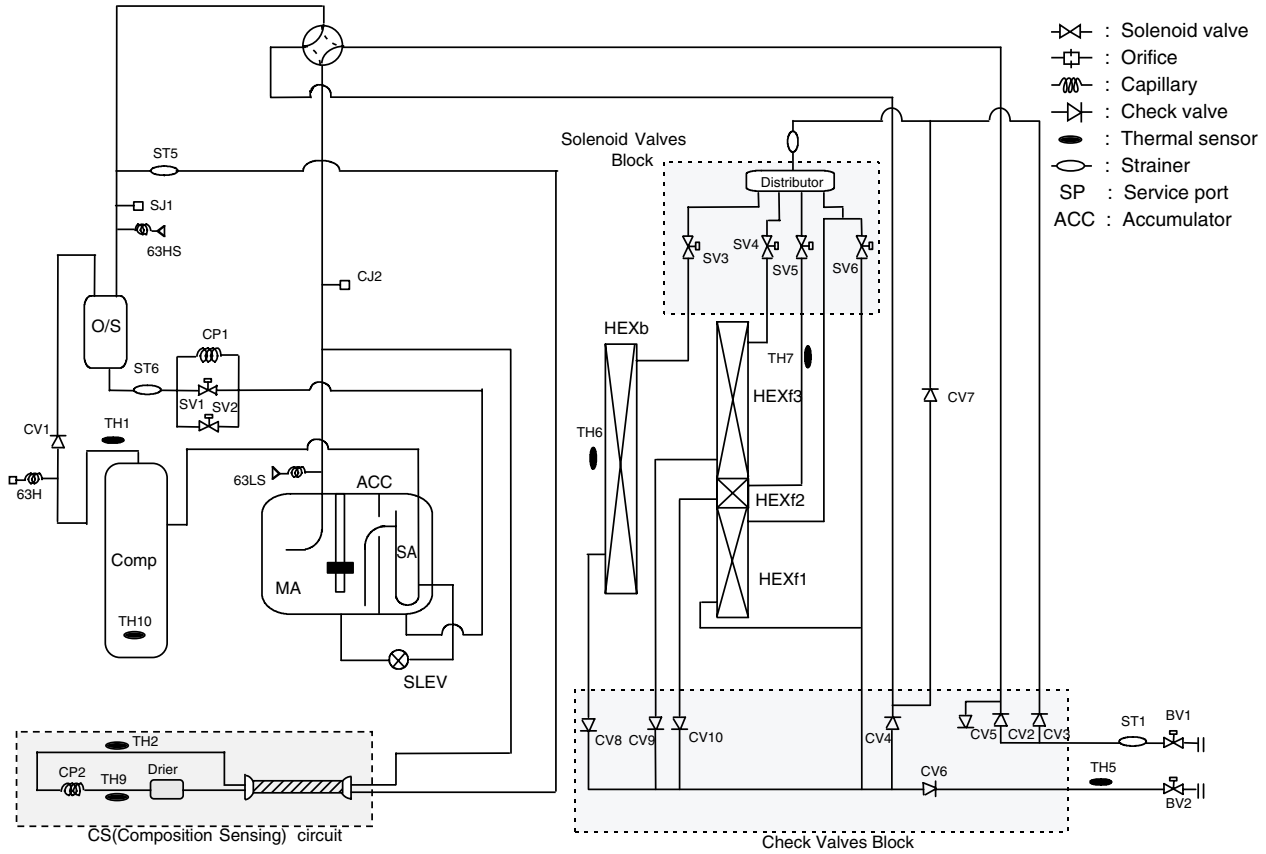
<SYMBOL EXPLANATION>

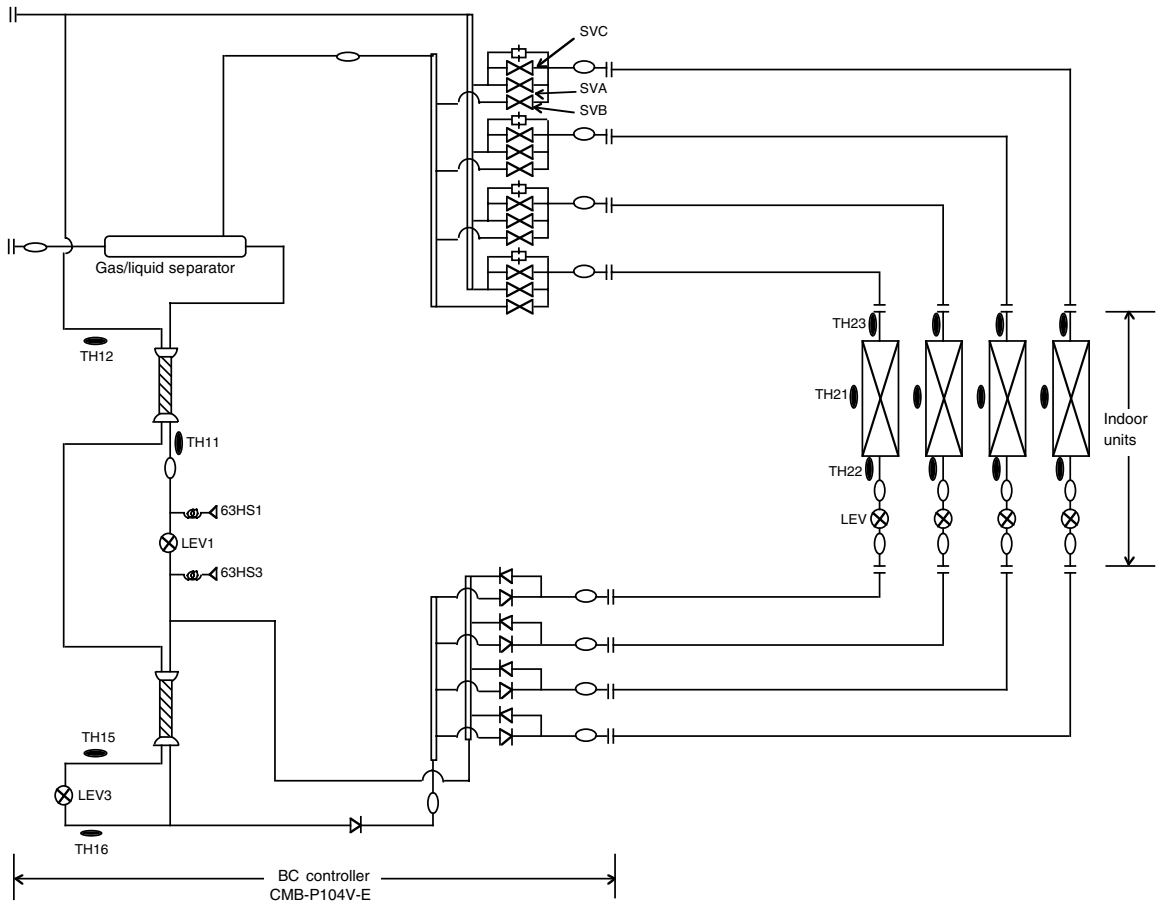
Symbol	Name	Symbol	Name	Symbol	Name	Symbol	Name
DCL	DC reactor (Power factor improvement)	SV1,SV2	Solenoid valve (Discharge–suction bypass)	TH1	Thermistor Discharge pipe temp. detect	THHS	Thermistor Radiator panel temp. detect
		SV3~SV6	Solenoid valve (Heat exchanger capacity control)	TH2	Saturation evapo. temp. detect	LD	Accumulator liquid level detect
ACCT-U,W	Current Sensor			TH5	Pipe temp. detect	X1~10	Aux. relay
ZNR4	Varistor	SLEV	Electronic expansion valve(Oil return)	TH6	OA temp. detect	FB1~4	Ferrite core
52C	Magnetic contactor (Inverter main circuit)	63HS	High pressure sensor	TH7	liquid outlet temp. detect at Sub–cool coil	⏚	Earth terminal
		63LS	Low pressure sensor				
MF1	Fan motor (Radiator panel)	L2	Choke coil(Transmission)	TH9	High pressure liquid temp.		
21S4	4–way valve	IPM	Intelligent power module	TH10	Compressor shell temp.		

R2(R407C)

6. Refrigerant circuit diagram and Thermal sensor

PURY-P200, 250YMF-C





R2(R407C)

PQRY-P200YMF-B, PQRY-P250YMF-B

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1. Specifications

Model name			PQRY-P200YMF-B	
			Cooling	Heating
Capacity		kcal/h	20,000	22,400
		kW	23.3	26.0
		BTU/h	79,400	88,900
Power source			3N ~ 380/400/415V 50Hz	
Power input		kW	8.40	7.90
Current		A	14.0/13.3/12.8	13.1/12.5/12.0
Compressor	Type		Hermetic	
	Motor output	kW	5.5	
	Crankcase heater	kW	0.045	
Heat exchanger	Type		Double coil	
	Water volume in the coil	l	10.5	
Circulating water	Volume	m^3/ h	3.88	
	Pressure drop	kPa	8	
Refrigerant / Lubricant			R407C/MEL32	
External finish			Steel plate acrylic paint	
External dimension		mm	1670(H)× 1150(W)× 500(L)	
Protection devices	High pressure protection		30kg/cm²G(2.94MPa)	
	Compressor		Over current protection	
	Inverter		DC bus current protection, thermal switch	
Refrigerant piping diameter		High press. / Low press.	ø 19.05 flare / ø 25.4 Flange	
Indoor unit	Total capacity		50 ~ 150% of heat source unit capacity	
	Model / Quantity		Model 20~ 140 / 1~ 15	
Noise level		dB<A>	53	
Net weight		kg	270	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Water :10˚C ~ 45˚C	Indoor:15˚CDB ~ 27˚CDB Water :10˚C ~ 45˚C

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

Cooling Indoor : 27˚CDB/19.5˚CWB Water temperature : 30˚C
Heating Indoor : 21˚CDB Water temperature : 20˚C
Pipe length : 5m Height difference : 0m

2.When the total capacity of indoor units exceeds 130% of heat source units capacity, the operating temperature range of circulating water is 15˚C ~ 45˚C.

3.The ambient temperature of heat source unit has to be kept below 40˚C (dry valve).
The ambient relative humidity of heat source unit has to be kept below 80%.

4.This unit can not be installed in the outdoor. (No protection against the weather.)

Model name			PQRY-P250YMF-B	
			Cooling	Heating
Capacity		kcal/h	25,000	28,000
		kW	29.1	32.6
		BTU/h	99,300	111,200
Power source			3N ~ 380/400/415V 50Hz	
Power input		kW	11.3	9.70
Current		A	18.8/17.9/17.2	16.1/15.3/14.8
Compressor	Type		Hermetic	
	Motor output	kW	7.5	
	Crankcase heater	kW	0.045	
Heat exchanger	Type		Double coil	
	Water volume in the coil	l	13	
Circulating water	Volume	m^3/ h	4.93	
	Pressure drop	kPa	10	
Refrigerant / Lubricant			R407C/Polyol ester oil (POE)	
External finish			Steel plate acrylic paint	
External dimension		mm	1670(H)× 1150(W)× 500(L)	
Protection devices	High pressure protection		30kg/cm^2G(2.94MPa)	
	Compressor		Over current protection	
	Inverter		DC bus current protection, thermal switch	
Refrigerant piping diameter		High press. / Low press.	ø 19.05 flare / ø 28.58 Flange	
Indoor unit	Total capacity		50 ~ 150% of heat source unit capacity	
	Model / Quantity		Model 20~ 140 / 1~ 16	
Noise level		dB<A>	54	
Net weight		kg	280	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Water :10˚C ~ 45˚C	Indoor:15˚CDB ~ 27˚CDB Water :10˚C ~ 45˚C

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27˚CDB/19.5˚CWB Water temperature : 30˚C
Heating Indoor : 21˚CDB Water temperature : 20˚C
Pipe length : 5m Height difference : 0m

2.When the total capacity of indoor units exceeds 130% of heat source units capacity, the operating temperature range of circulating water is 15˚C ~ 45˚C.

3.The ambient temperature of heat source unit has to be kept below 40˚C (dry valve).
The ambient relative humidity of heat source unit has to be kept below 80%.

4.This unit can not be installed in the outdoor. (No protection against the weather.)

2. Capacity tables

2-1. Correction by temperature

Cooling

• Standard Specifications

		PQRY-P200YMF-B	PQRY-P250YMF-B
Capacity	kcal/h	20,000	25,000
	kW	23.3	29.1
	BTU/h	79,400	99,300
Input	kW	8.40	11.3
Source	V	380/400/415	
Current	A	14.0/13.3/12.8	18.8/17.9/17.2

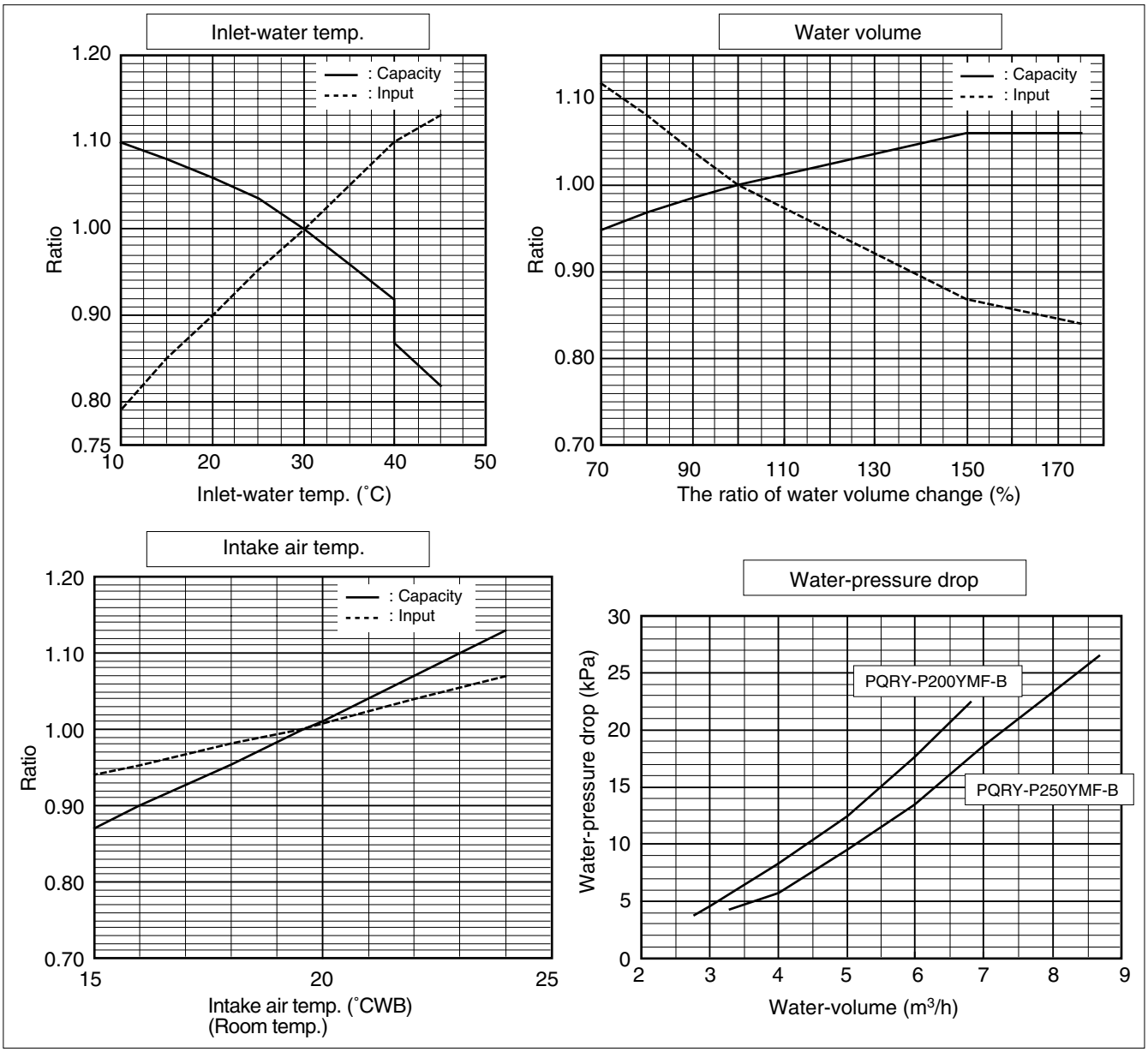
• Calculation

$$\text{Capacity}' = \text{Capacity} \times \text{Ratio}$$

$$\text{Input}' = \text{Input} \times \text{Ratio}$$

$$\text{Current}' = \frac{\text{Input}' \times 1000}{\sqrt{3} \times \text{Source} \times 0.91}$$

❋ Capacity', Input', Current' — After correction



WR2(R407C)

Heating

• Standard Specifications

		PQRY-P200YMF-B	PQRY-P250YMF-B
Capacity	kcal/h	22,400	28,000
	kW	26.0	32.6
	BTU/h	88,900	111,200
Input	kW	7.90	9.70
Source	V	380/400/415	
Current	A	13.1/12.5/12.0	16.1/15.3/14.8

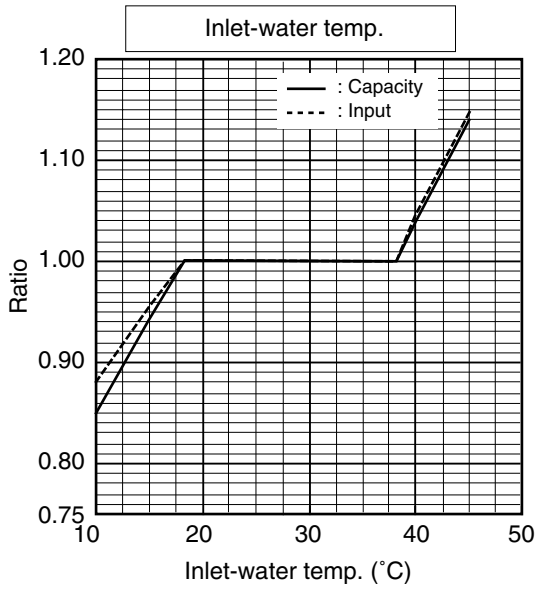
• Calculation

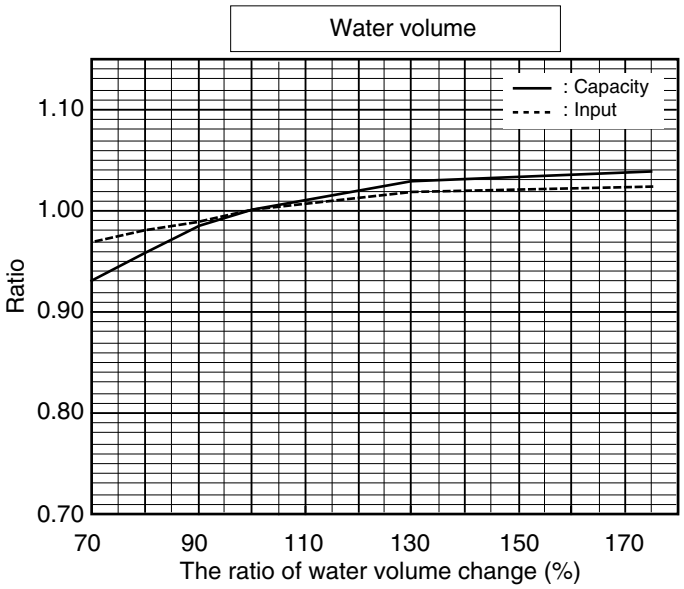
$$\text{Capacity}' = \text{Capacity} \times \text{Ratio}$$

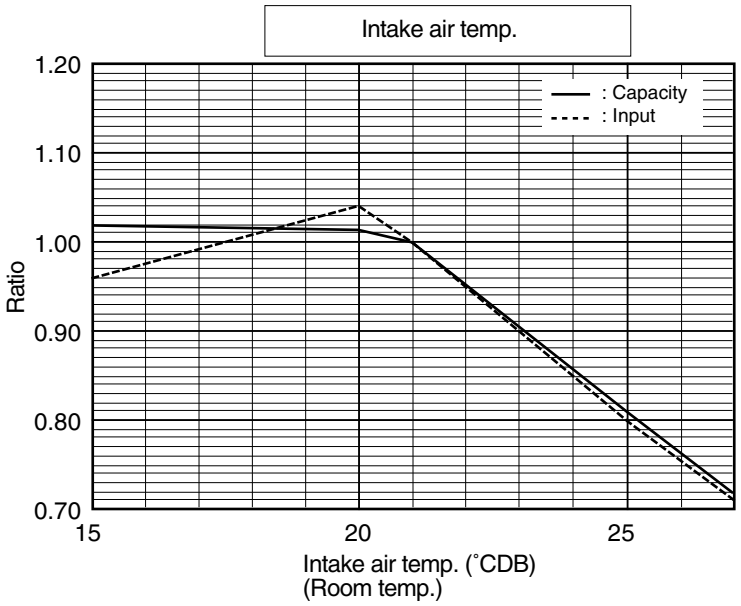
$$\text{Input}' = \text{Input} \times \text{Ratio}$$

$$\text{Current}' = \frac{\text{Input}' \times 1000}{\sqrt{3} \times \text{Source} \times 0.91}$$

※Capacity'
Input'
Current'
} After correction



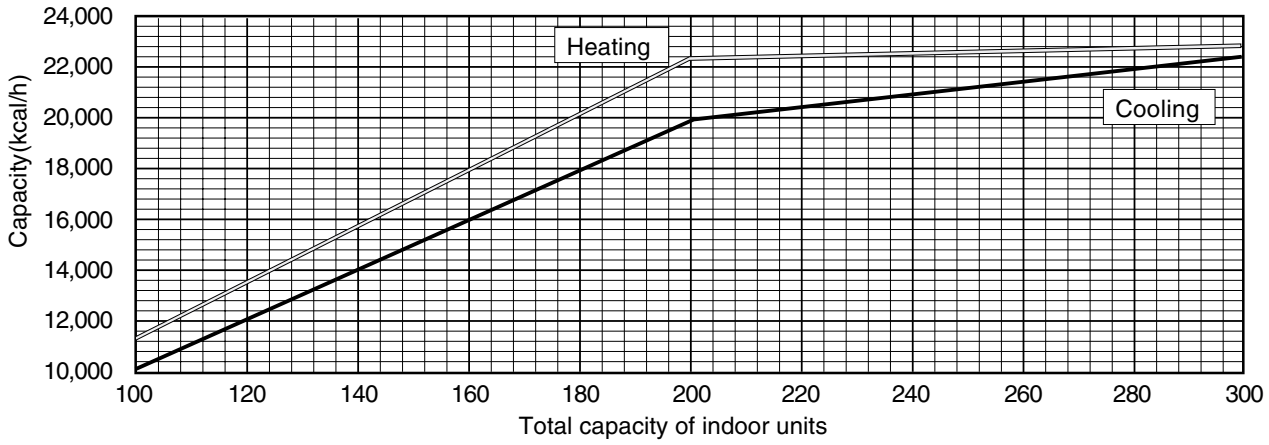




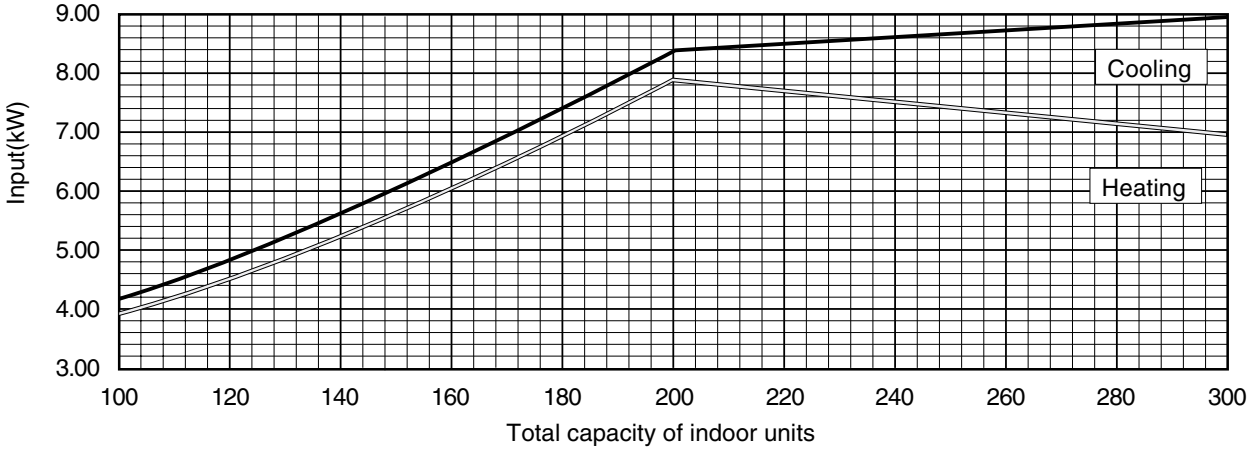
2-2. Correction by total indoor

PQRY-P200YMF-B

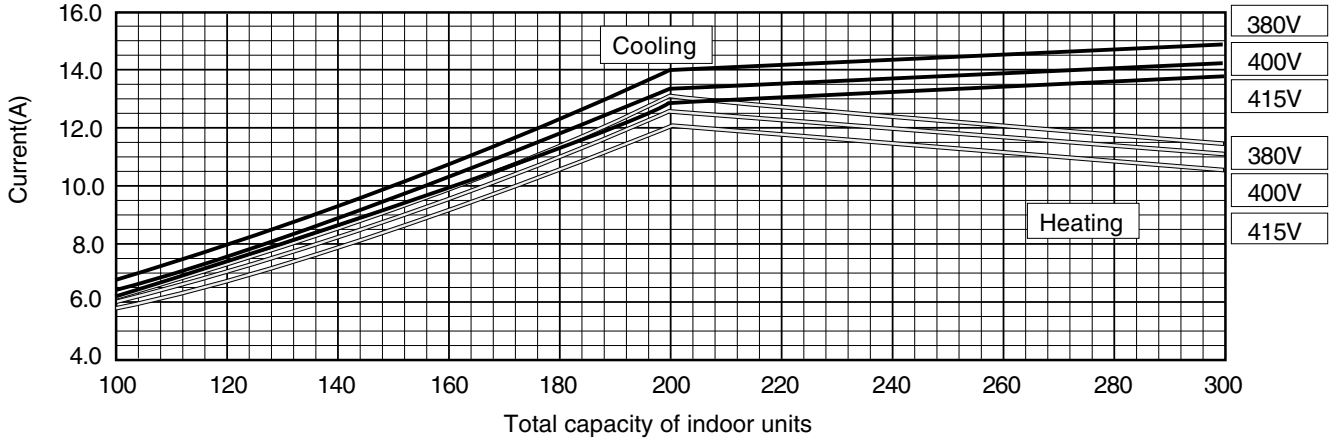
1) Capacity



2) Input

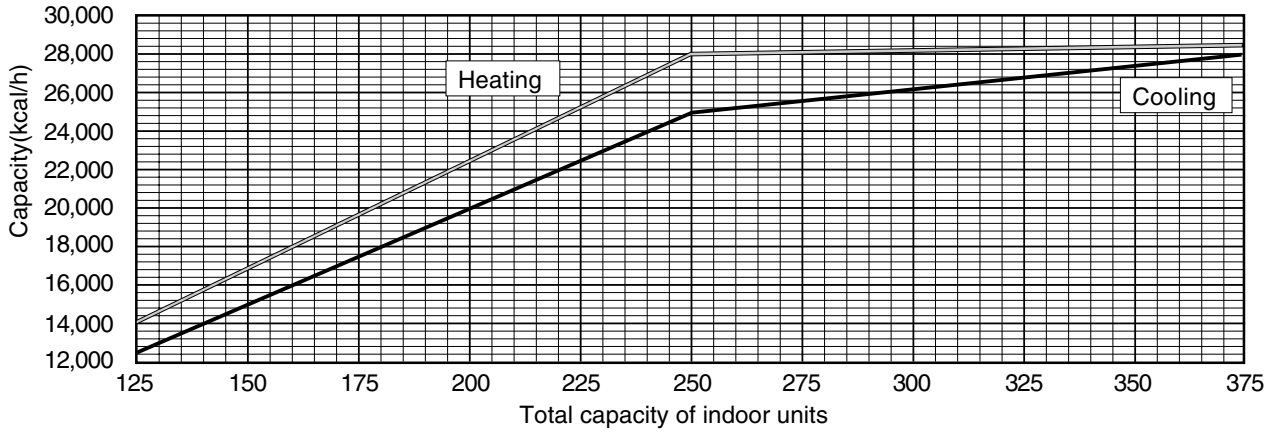


3) Current

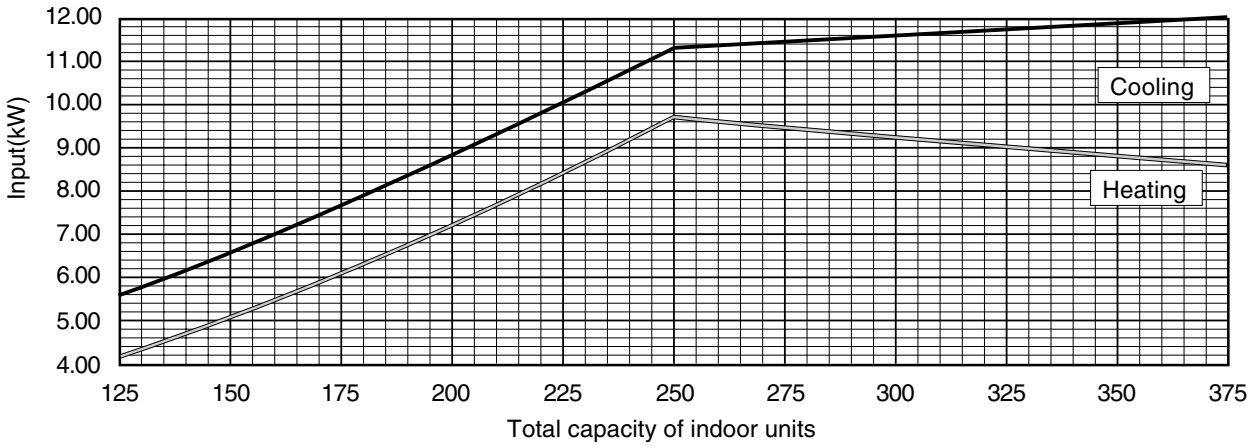


PQRY-P250YMF-B

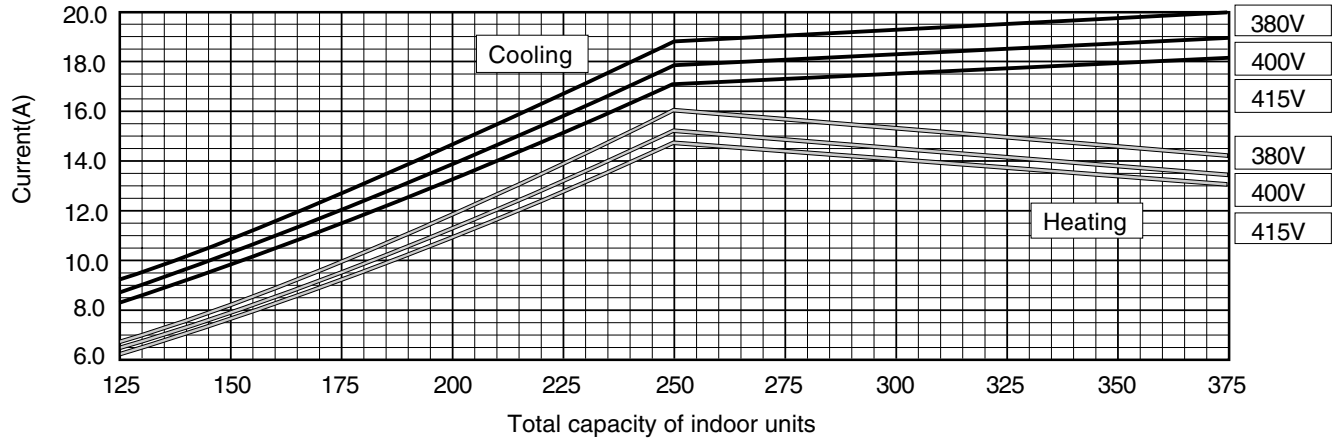
1) Capacity



2) Input



3) Current

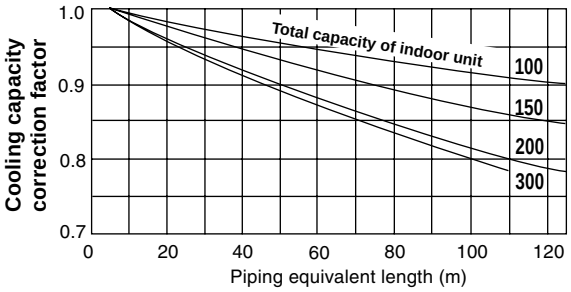


2-3 Correction by refrigerant piping length

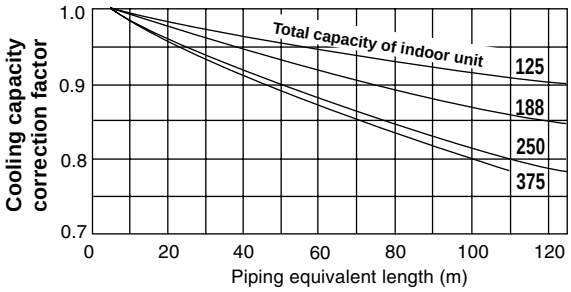
To obtain a decrease in cooling/heating capacity due to refrigerant piping extension, multiply by the capacity correction factor based on the refrigerant piping equivalent length in the table below.

• Cooling capacity correction

PQRY-P200YMF-B

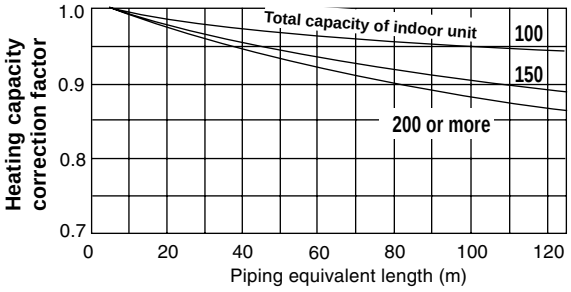


PQRY-P250YMF-B

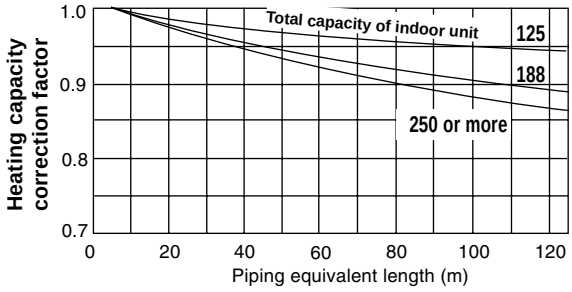


• Heating capacity correction

PQRY-P200YMF-B



PQRY-P250YMF-B



• How to obtain piping equivalent length

① **PQRY-P200YMF-B**

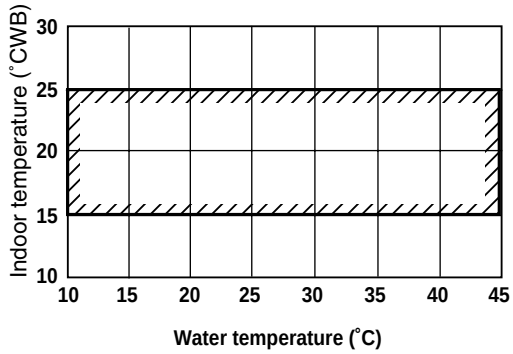
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.47 × number of bent on the piping)m

② **PQRY-P250YMF-B**

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 × number of bent on the piping)m

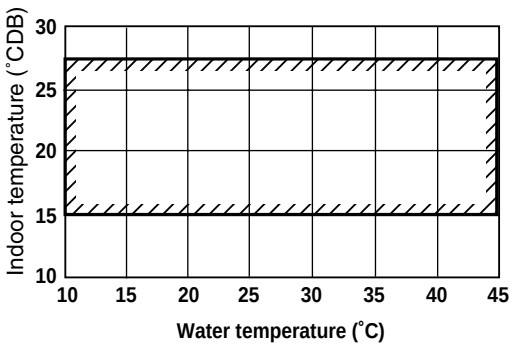
2-4 Operation limit

• Cooling



(Indoor capacity ≧ 130% : Water temp. 15~45˚C)

•Heating



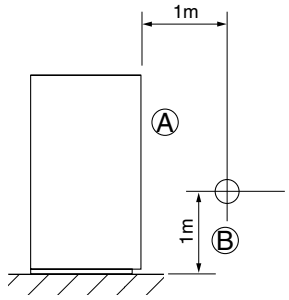
(Indoor capacity ≧ 130% : Water temp. 15~45˚C)

WR2(R407C)

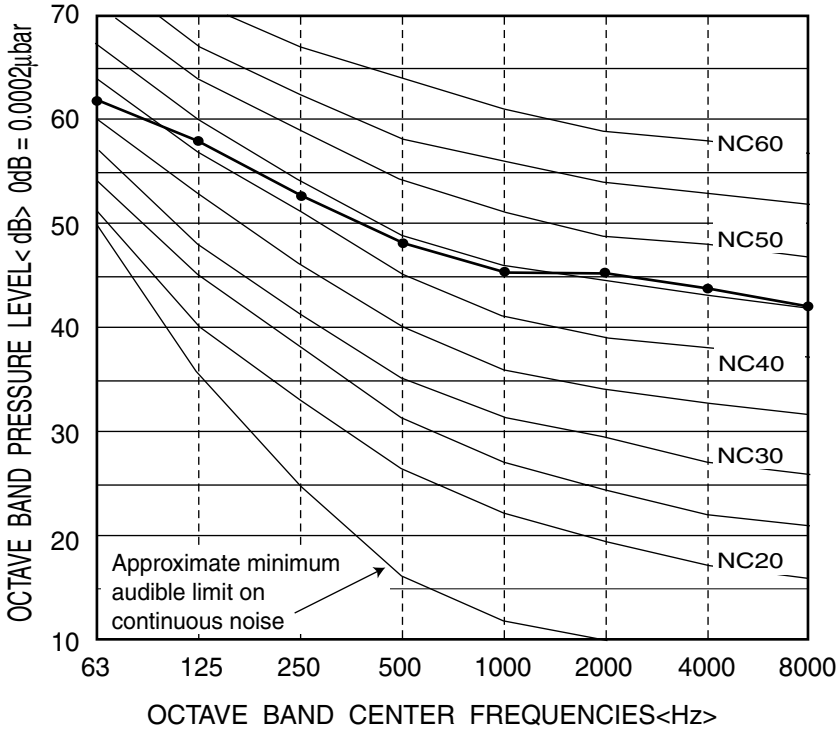
3. Sound levels

PQRY-P200YMF-B

Measurement condition

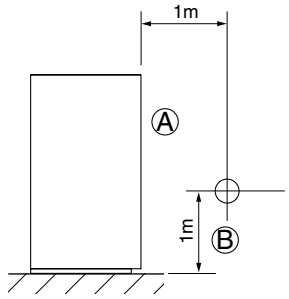


Sound pressure level in anechoic room
53 dB (A)

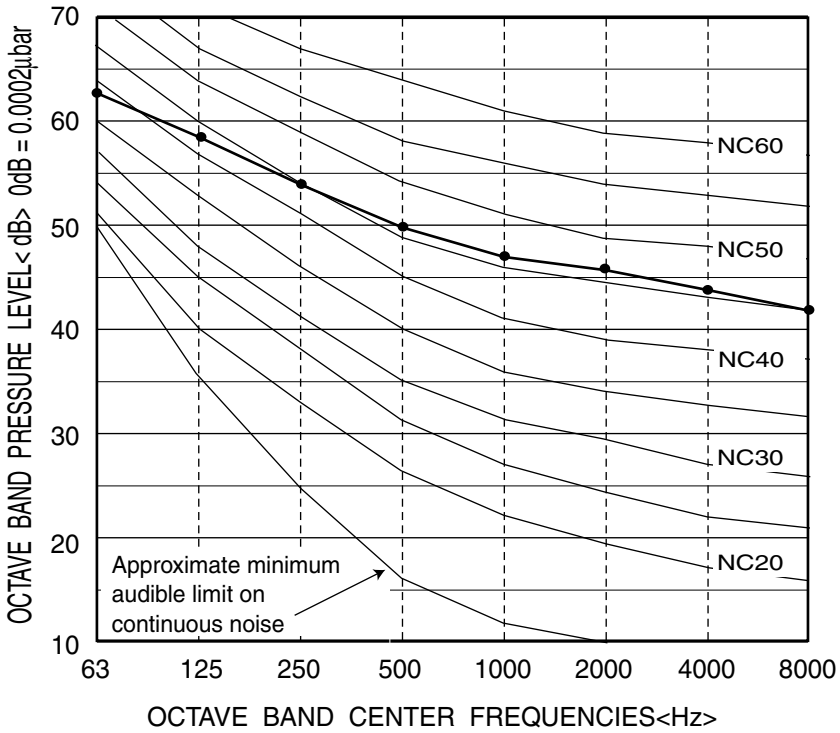


PQRY-P250YMF-B

Measurement condition



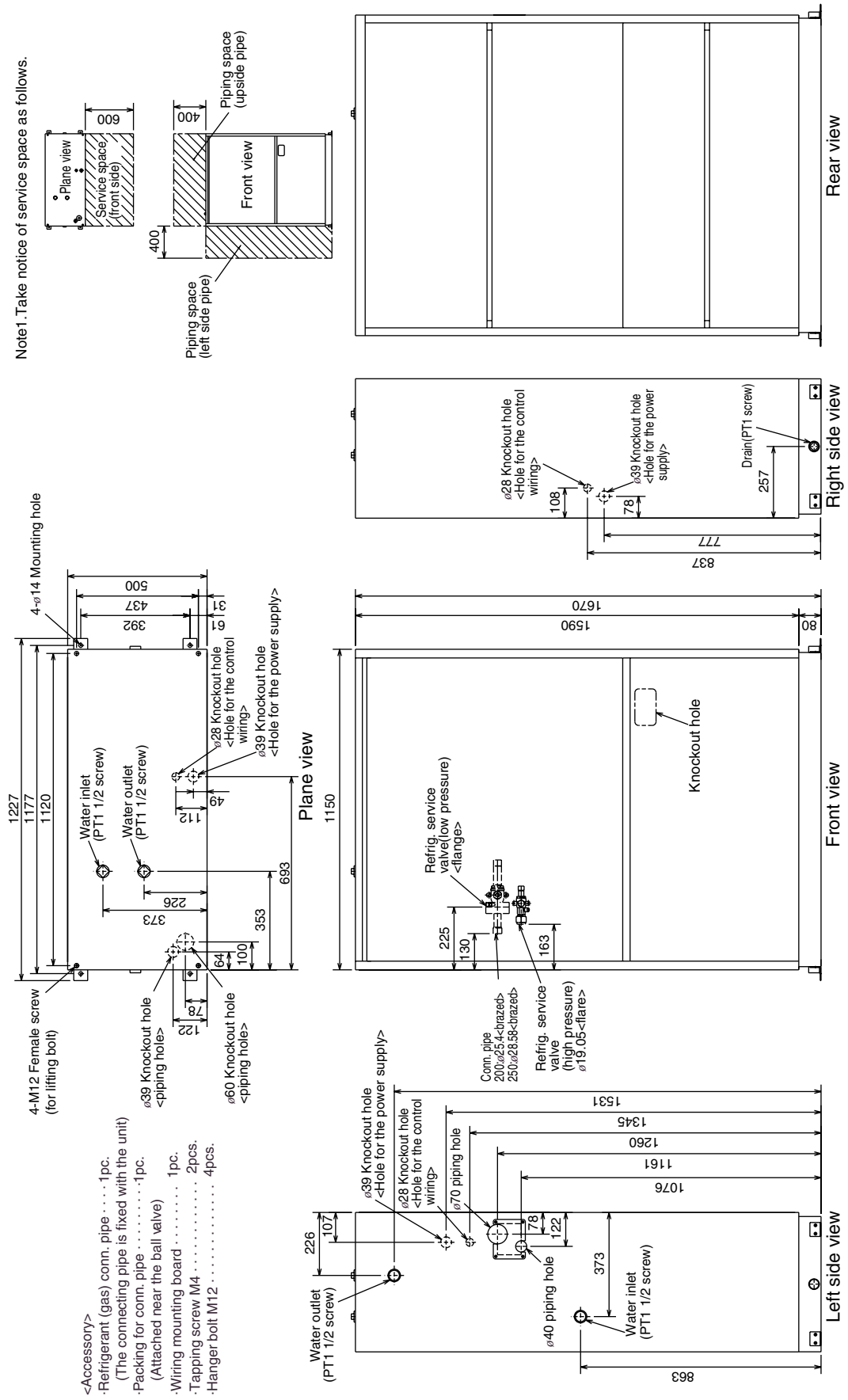
Sound pressure level in anechoic room
54 dB (A)



4. External dimensions

PQRY-(P)200,250YMF-B

Unit : mm



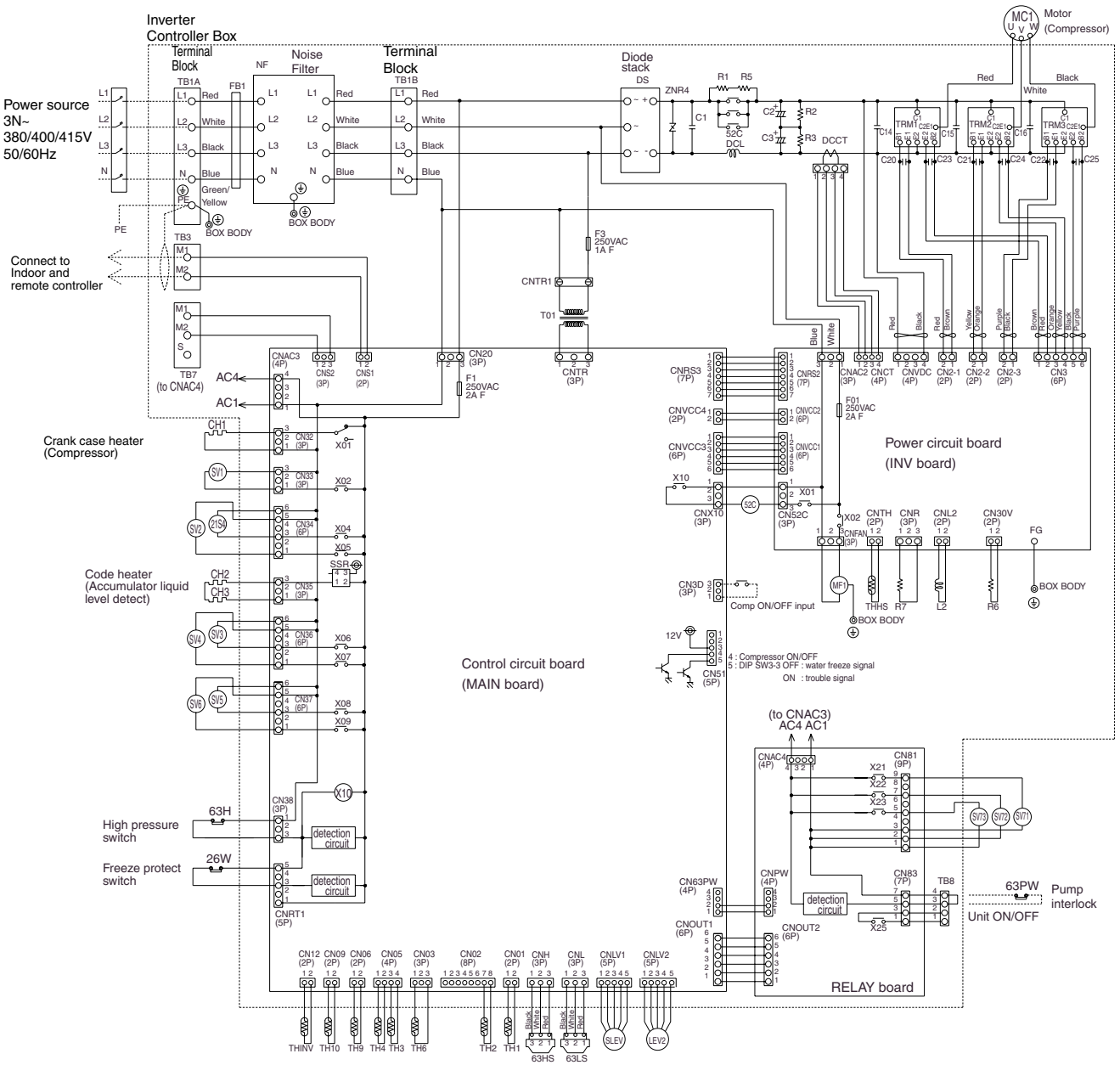
<Accessory>
·Refrigerant (gas) conn. pipe · · · · 1pc.
(The connecting pipe is fixed with the unit)
·Packing for conn. pipe · · · · · · · · 1pc.
(Attached near the ball valve)
·Wiring mounting board · · · · · · · · 1pc.
·Tapping screw M4 · · · · · · · · · · · · 2pcs.
·Hanger bolt M12 · · · · · · · · · · · · · · 4pcs.

WR2(R407C)

5. Electrical Wiring Diagram

PQRY-P200, 250YMF-B

<WIRING DIAGRAM>

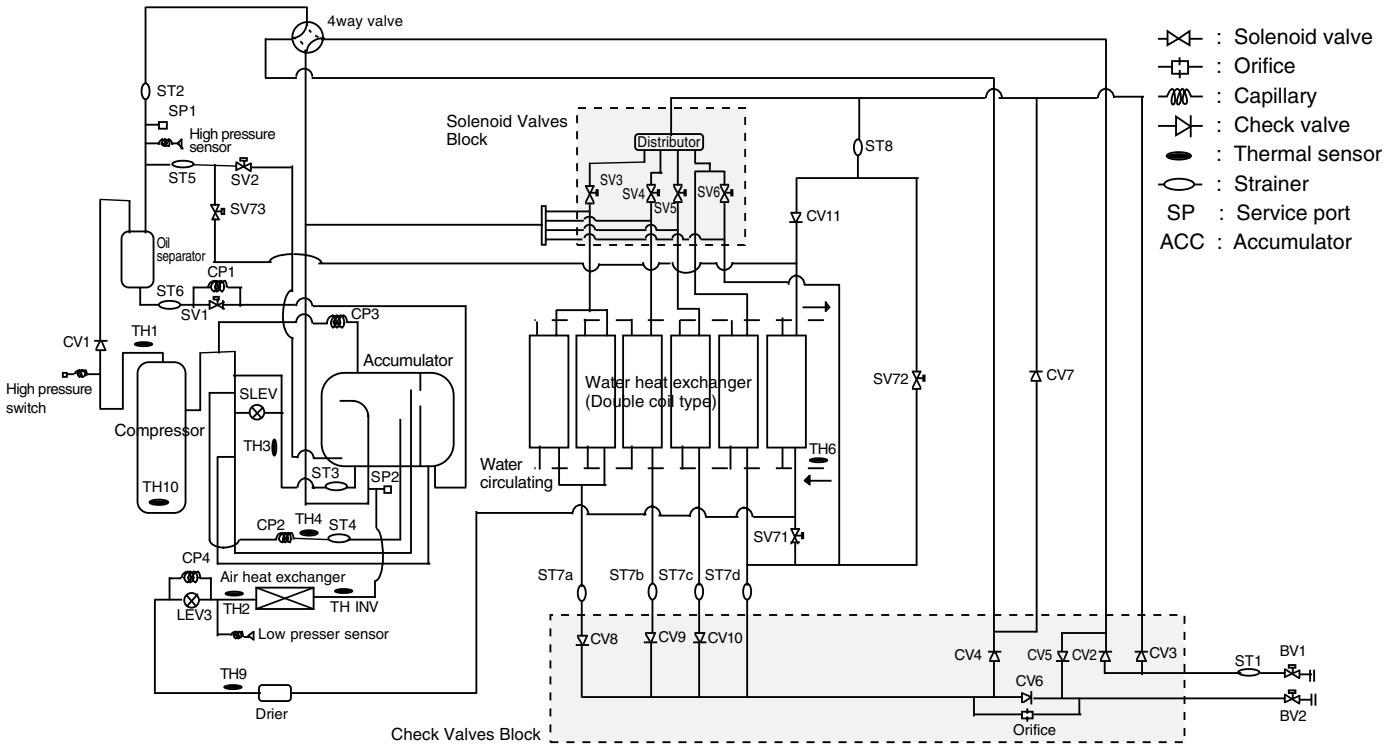


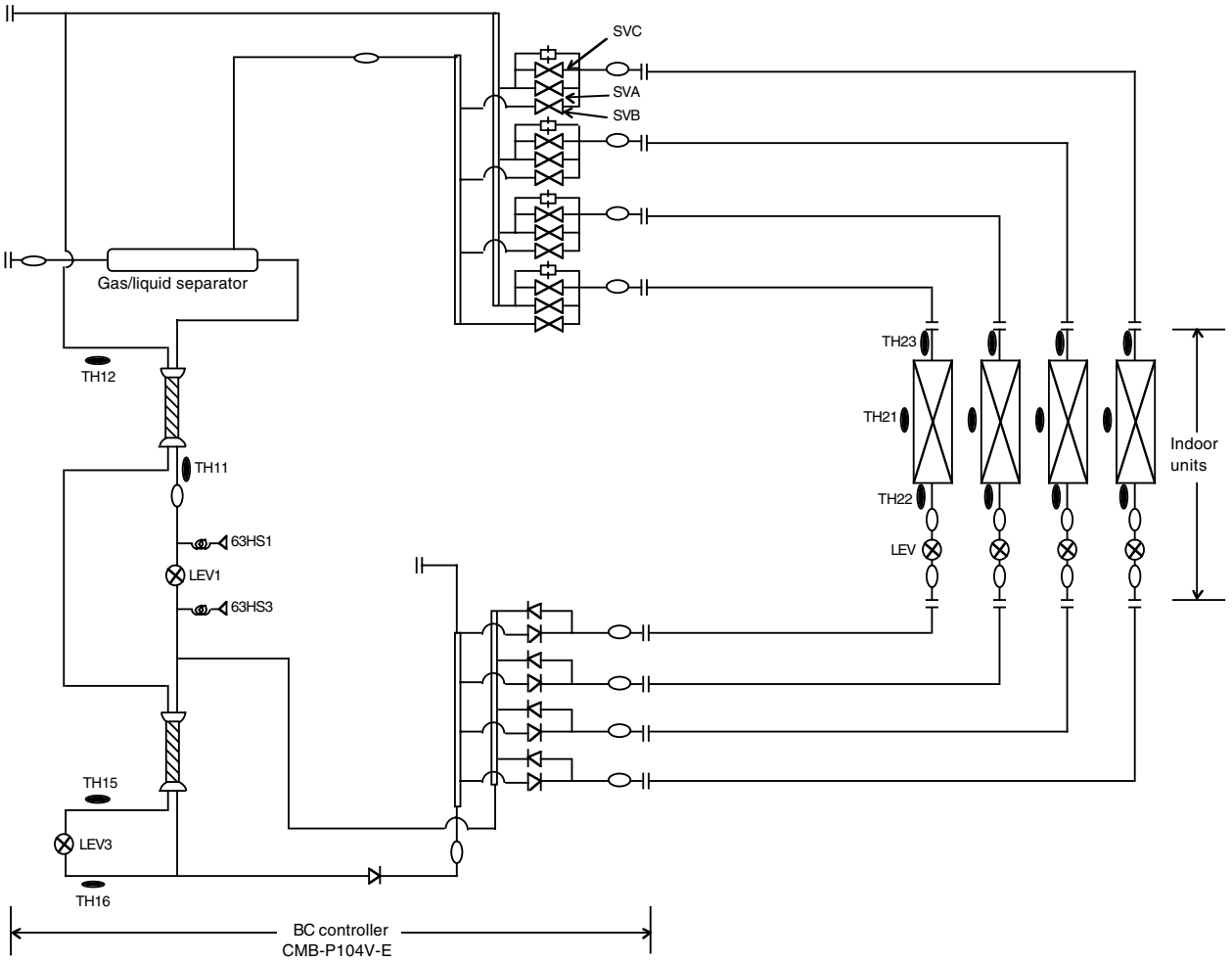
<Symbol explanation>

Symbol	Name		
DCL	DC reactor (Power factor improvement)	LEV2	Electronic expansion valve (Heat exchanger for inverter)
DCCT	Current Sensor	SLEV	Electronic expansion valve (Oil return)
ZNR4	Varistor	63HS	High pressure sensor
52C	Magnetic contactor (Inverter main circuit)	63LS	Low pressure sensor
MF1	Fan motor (Radiator panel)	X1,2,4~10 X21~23,25	Aux. relay
L2	Choke coil (Transmission)	TH1	Thermistor: Discharge pipe temp. detect
DS	Diode stack	TH2	Saturation evapo. temp. detect
TRM1~3	Power transistor module	TH3	Accumulator liquid temp. detect: Upper
NF	Niose Filter	TH4	Accumulator liquid temp. detect: Lower
FB1	Ferrite core	TH6	OA temp. detect
SSR	Solid state relay	TH9	High pressure liquid temp.
21S4	4-way valve	TH10	Compressor shell temp.
SV1, SV2	Solenoid valve (Discharge-suction bypass)	THHS	Radiator panel temp. detect
SV3~6	Solenoid valve (Heat exchanger capacity control)	THINV	Outlet temp. detect of heat exchanger for inverter
SV71~73	Solenoid valve (Heat exchanger capacity control)	⏚	Earth terminal

6. Refrigerant circuit diagram and Thermal sensor

PQRY-P200, 250YMF-B





WR2(R407C)

7. System design guide

7-1 Designing of water circuit system

1) Example of basic water circuit

The water circuit of the water heat source CITY MULTI connects the heat source unit with the cooling tower/auxiarily heat source/heat storage tank/circulation pump with a single system water piping as shown in the figure below. The selector valve automatically controls to circulate water toward the cooling tower in the cooling season, while toward the heat storage tank in the heating season. If the circulation water temperature is kept in a range of 10~45˚C* regardless of the building load, the water heat source CITY MULTI can be operated for either cooling or heating. Therefore in the summer when only cooling load exists, the temperature rise of circulation water will be suppressed by operating the cooling tower. While in the winter when heating load increases, the temperature of circulation water may be dropped below 10˚C. Under such situation, the circulation water will be heated with the auxiliary heat source if it drops below a certain temperature.

When the thermal balance between cooling and heating operation is in a correct proportion, the operation of the auxiliary heat source and cooling tower is not required.

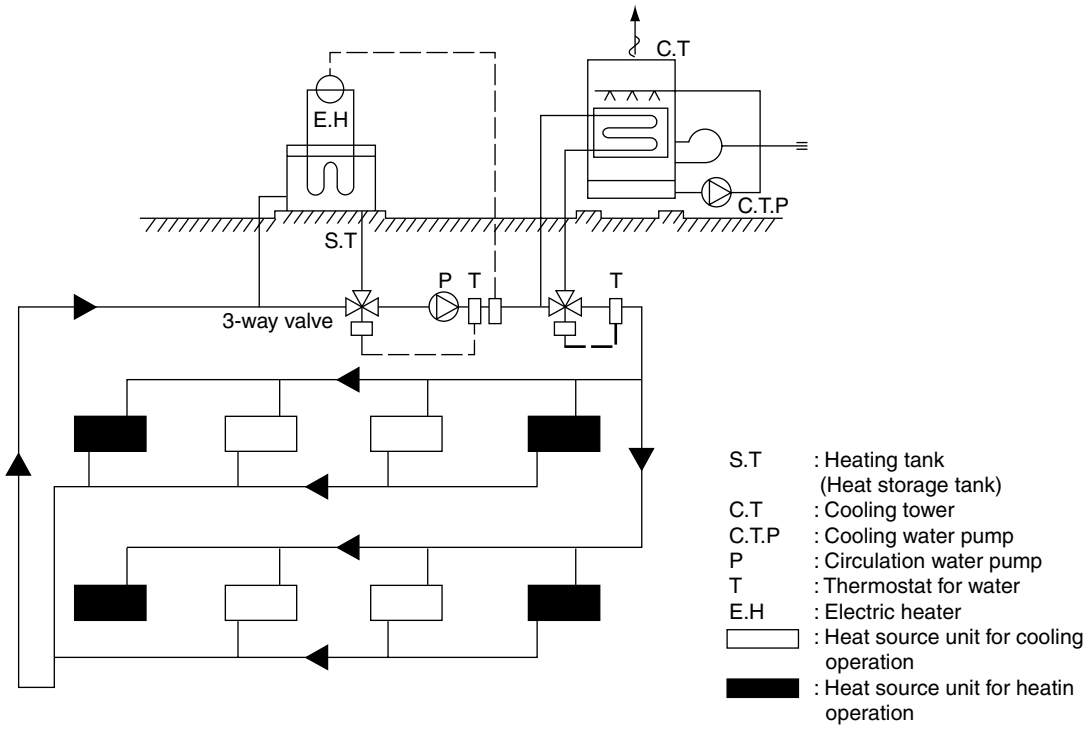
In order to control the above thermal balance properly and use thermal energy effectively, utilizing of heat storage tanks, and night-time discounted electric power as a auxiliary heat source will be economical.

Meantime as this system uses plural sets of heat source unit equipped with water heat exchangers, water quality control is important. Therefore it is recommended to use closed type cooling towers as much as possible to prevent the circulation water from being contaminated.

When open type cooling towers are used, it is essential to provide proper maintenance control such as that to install water treatment system to prevent troubles caused by contaminated circulation water.

*15~45˚C : 50%~150% of indoor units can be connected
*10~40˚C : 50%~130% of indoor units can be connected

Example of basic water circuit for water heat source CITY MULTI



The indoor unit and refrigerant piping system are excluded in this figure.

2) Cooling tower

a) Types of cooling tower

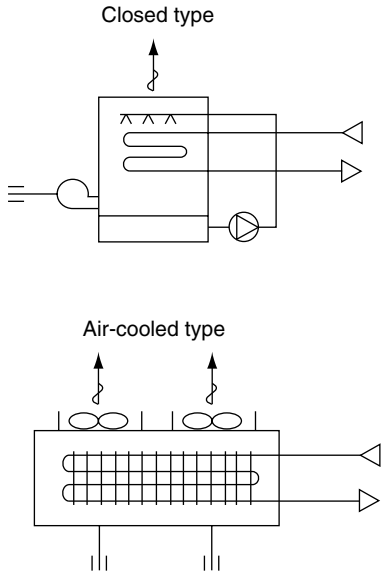
The cooling towers presently used include the open type cooling tower, open type cooling tower + heat exchanger, closed type cooling tower, and air-cooled type cooling tower. However, as the quality control of circulation water is essential when units are installed in decentralized state inside a building, the closed type cooling tower is generally employed in such case.

Although the circulation water will not be contaminated by atmospheric air, it is recommended to periodically blow water inside the system and replenish fresh water instead.

In a district where the coil may be frozen in the winter, it is necessary to apply antifreeze solution to the circulation water, or take freeze protection measures such as to automatically discharge water inside the cooling coil at the stopping of the pump.

When the open type cooling tower is used, be sure to install a water quality control device in addition to the freeze protection measures, as the water may be deteriorated by atmospheric contaminants entered into the cooling tower and dissolved into the circulation water.

Types of cooling towers



b) Calculation method of cooling tower capacity

All units of the water heat source CITY MULTI may possibly be in cooling operation temporarily (at pulling down) in the summer, however, it is not necessary to determine the capacity according to the total cooling capacity of all CITY MULTI units as this system has a wide operating water temperature range

(15~45˚C : 130% over
10~45˚C : 130% or less).

It is determined in accordance with the value obtained by adding the maximum cooling load of an actual building, the input heat equivalent value of all CITY MULTI units, and the cooling load of the circulating pumps. Please check for the values of the cooling water volume and circulation water volume.

$$\text{Cooling tower capacity} = \frac{Qc + 860 \times (\sum Qw + Rw)}{3{,}900} \text{ (Refrigeration ton)}$$

Qc : Maximum cooling load under actual state (kcal/h)
Qw : Total input of water heat source CITY MULTI at simultaneous operation under maximum state (kW)
Pw : Shaft power of circulation pumps (kW)

3) Auxiliary heat source and heat storage tank

When the heating load is larger than the cooling load, the circulation water temperature lowers in accordance with the heat balance of the system. It should be heated by the auxiliary heat source in order to keep the inlet water temperature within the operating range

(15˚C or more : 130% over
10˚C or more : 130% or less)

of the water heat source CITY MULTI.

Further in order to operate the water heat source CITY MULTI effectively, it is recommended to utilize the heat storage tank to cover the warming up load in the morning and the insufficient heat amount.

Effective heat utilization can be expected to cover insufficient heat at the warming up in the next morning or peak load time by storing heat by installing a heat storage tank or operating a low load auxiliary heat source at the stopping of the water heat source CITY MULTI. As it can also be possible to reduce the running cost through the heat storage by using the discounted night-time electric power, using both auxiliary heat source and heat storage tank together is recommended.

The effective temperature difference of an ordinary heat storage tank shows about 5deg. even with the storing temperature at 45˚C.

However with the water heat source CITY MULTI, it can be utilized as heating heat source up to 15˚C with an effective temperature of a high 30deg. approximately, thus the capacity of the heat storage tank can be minimized.

a)Auxiliary heat source

The following can be used as the auxiliary heat source.

- Boiler (Heavy oil, kerosine, gas, electricity)
- Electric heat (Insertion of electric heater into heat storage tank)
- Outdoor air (Air-heat source heat pump chiller)
- Warm discharge water (Exhaust water heat from machines inside building and hot water supply)
- Utilization of night-time lighting
- Solar heat

Please note that the auxiliary heat source should be selected after studying your operating environment and economical feasibility.

Determining the auxiliary heat source capacity

For the CITY MULTI water heat source system, a heat storage tank is recommended to use. When employment of the heat storage tank is difficult, the warming up operation should be arranged to cover the starting up heating load. Since the holding water inside the piping circuit owns heat capacity and the warming up operation can be assumed for about one hour except that in a cold region, the heat storage tank capacity is required to be that at the maximum daily heating load including the warming up load at the next morning of the holiday.

However the auxiliary heat source capacity should be determined by the daily heating load including warming up load on the week day.

For the load at the next morning of the holiday, heat storage is required by operating the auxiliary heat source even outside of the ordinary working hour.

When heat storage tank is not used

$$QH = HC_T \left(1 - \frac{1}{COP_h}\right) - 1000 \times Vw \times \Delta T - 860 \times Pw$$

QH	: Auxiliary heat source capacity	(kcal/h)
HC_T	: Total heating capacity of each water heat source CITY MULTI	(kcal/h)
COP_H	: COP of water heat source CITY MULTI at heating	
Vw	: Holding water volume inside piping	(m^3)
ΔT	: Allowable water temperature drop = T_{WH} - T_{WL}	(˚C)
T_{WH}	: Heat source water temperature at high temperature side	(˚C)
T_{WL}	: Heat source water temperature at low temperature side	(˚C)
Pw	: Heat source water pump shaft power	(kW)

When heat storage tank is used;

$$QH = \frac{HQ_{1T} = \left(1 - \frac{1}{COP_h}\right) - 860 \times Pw \times T_2}{T_1} \times K \quad \text{(Kcal)}$$

QH_{1T}	: Total of heating load on weekday including warming up	(kcal/day)
T_1	: Operating hour of auxiliary heat source	(h)
T_2	: Operating hour of heat source water pump	(h)
K	: Allowance factor (Heat storage tank, piping loss, etc.)	1.05~1.10

HQ_{1T} is calculated from the result of steady state load calculation similarly by using the equation below.

$HQ_{1T} = 1.15 \times (\sum Q'a + \sum Q'b + \sum Q'c + \sum Q'd + \sum Q'f)\ T_2 - \psi\ (\sum Qe_1 + \sum Qe_2 + \sum Qe_3)\ (T2 - 1)$

Q'a	: Thermal load from external wall/roof in each zone	(kcal/h)
Q'b	: Thermal load from glass window in each zone	(kcal/h)
Q'c	: Thermal load from partition/ceiling/floor in each zone	(kcal/h)
Q'd	: Thermal load by infiltration in each zone	(kcal/h)
Q'f	: Fresh outdoor air load in each zone	(kcal/h)
$Q'e_1$	: Thermal load from human body in each zone	(kcal/h)
$Q'e_2$	: Thermal load from lighting fixture in each zone	(kcal/h)
$Q'e_3$	: Thermal load from equipment in each zone	(kcal/h)
ψ	: Radiation load rate	0.6~0.8
T2	: Air conditioning hour	

b) Heat storage tank

Heat storage tank can be classified by types into the open type heat storage tank exposed to atmosphere, and the closed type heat storage tank with structure separated from atmosphere. Although the size of the tank and its installation place should be taken into account, the closed type tank is being usually employed by considering corrosion problems.

The capacity of heat storage tanks is determined in accordance with the daily maximum heating load that includes warming up load to be applied for the day after the holiday.

When auxiliary heat source is operated during operation and even after stopping of water heat source CITY MULTI unit

$$V = \frac{HQ_{2T}\left(1 - \frac{1}{COP_h}\right) - 860 \times Pw \times T_2 - QH \times T_2}{\Delta T \times 1000 \times \eta V} \quad \text{(ton)}$$

When auxiliary heat source is operated after stopping of water heat source CITY MULTI unit

$$V = \frac{HQ_{2T}\left(1 - \frac{1}{COP_h}\right) - 860 \times Pw \times T_2}{\Delta T \times 1000 \times \eta V} \quad \text{(ton)}$$

HQ_{2T}	: Maximum heating load including load required for the day after the holiday	(kcal/day)
ΔT	: Temperature difference utilized by heat storage tank	(deg)
ηV	: Heat storage tank efficiency	

HQ_{2T} : $1.3 \times (\sum Q'a + \sum Q'c + \sum Q'd + \sum Q'f)\ T2 - \psi(\sum Qe2 + \sum Qe3)\ (T2 - 1)$

4) Piping system

The following items should be kept in your mind in planning / designing water circuits.

a) All units should be constituted in a single circuit in principle.

b) When plural numbers of the water heat source CITY MULTI unit are installed, the rated circulating water flow rate should be kept by making the piping resistance to each unit almost same value. As an example, the reverse return system as shown below may be employed.

c) Depending on the structure of a building, the water circuit may be prefabricated by making the layout uniform.

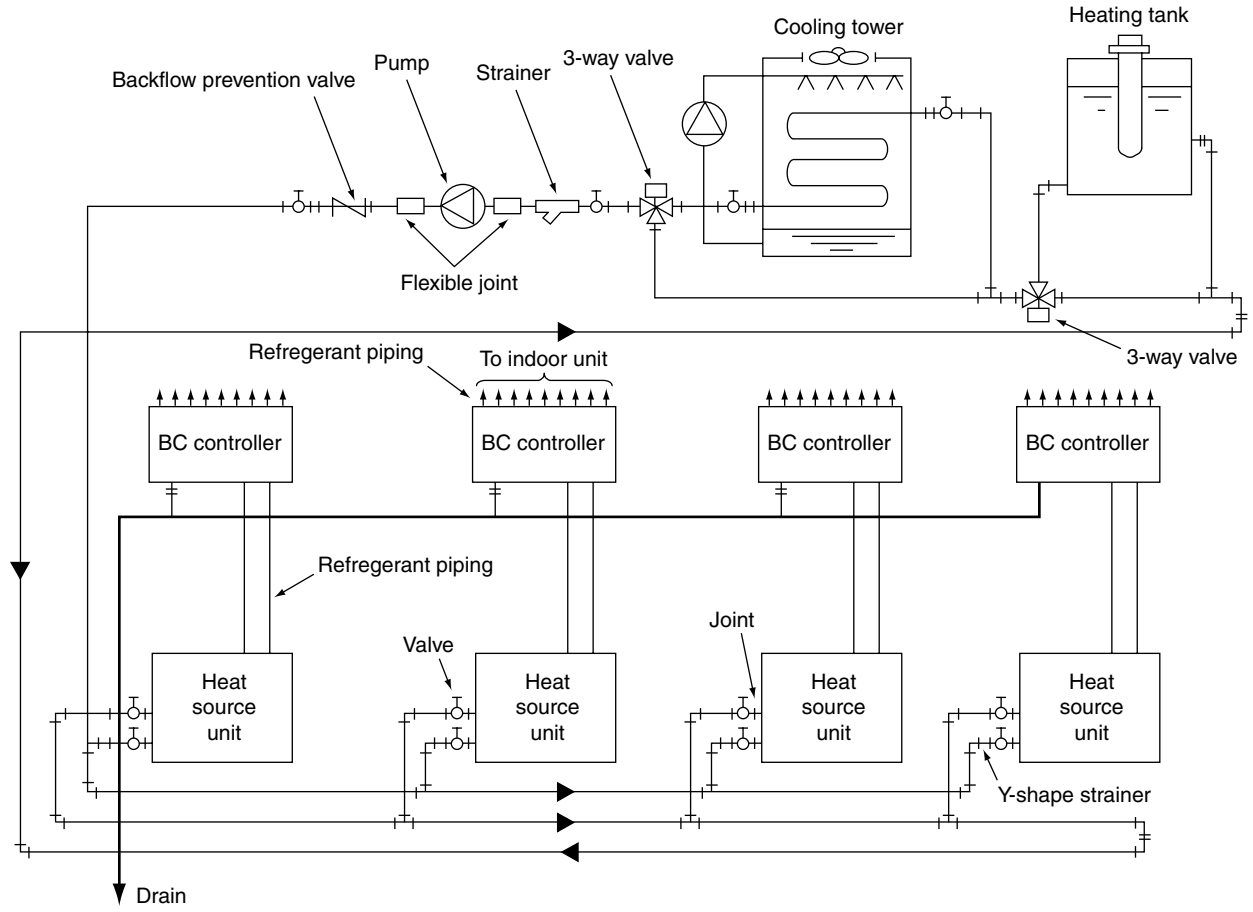
d) When a closed type piping circuit is constructed, install an expansion tank usable commonly for a make-up water tank to absorb the expansion/contraction of water caused by temperature fluctuation.

e) If the operating temperature range of circulation water stays within the temperature near the normal temperature (summer : 30˚C, winter : 20˚C), thermal insulation or anti-sweating work is not required for the piping inside buildings.

In case of the conditions below, however, thermal insulation is required.

- When well water is used for heat source water.
- When piped to outdoor or a place where freezing may be caused.
- When vapor condensation may be generated on piping due to an increase in dry bulb temperature caused by the entry of fresh outdoor air.

System example of water circuit



5) Cleaning of water heat exchanger

For the water heat exchanger, scale adheres in less amount generally in the case of closed type cooling towers. However in a long period of use, scale will adhere that may lower the heat exchange capacity and increase the water resistance.

In such case, conduct cleaning work under the procedure given below.

The cleaning work procedure generally used is as follows. However as the cleaning agents have various differences in their cleaning effect, corrosion characteristics, processing time, and condensation for use, conduct the work after consulting the relating maker.

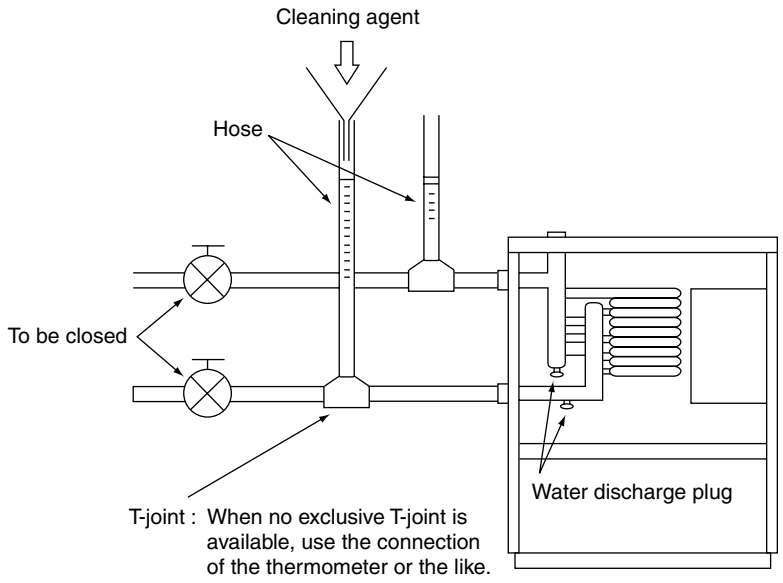
Acid washing → Water washing → Neutralization → Water washing → Applying inhibitor

a)Still standing method

This method feeds the raw liquid or diluted solution of cleaning agent into the water circuit and leave it for a while, and requires only a simple device.

- Since the cleaning time required differs by the agent of each maker, be sufficiently careful for the time and not to exceed the time specified.
- Fully recover the cleaning liquid through the water discharge plug of the heat exchanger, and then fully clean the water circuit with clean water. If the water washing can not be made sufficiently, neutralization processing will be effective.

Still standing cleaning device

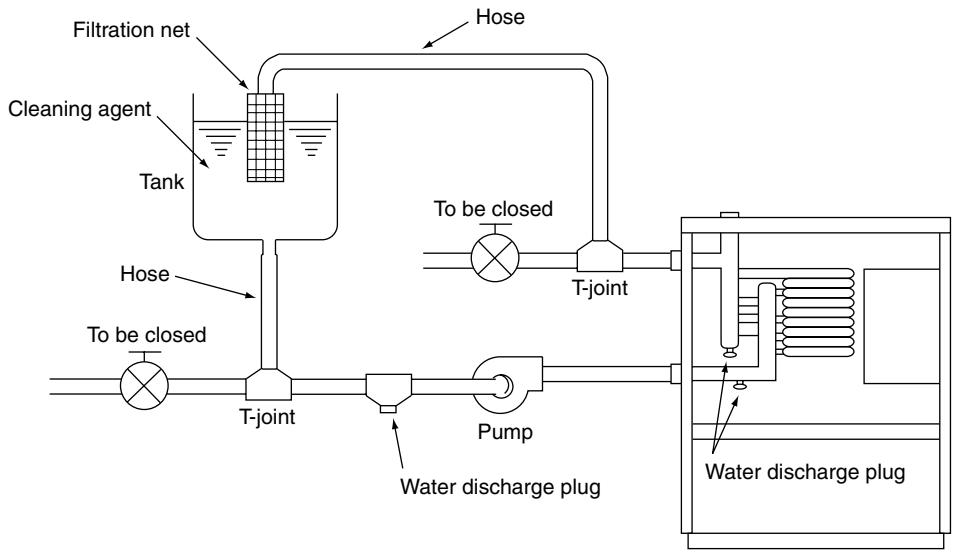

Cleaning agent
Hose
To be closed
Water discharge plug
T-joint : When no exclusive T-joint is available, use the connection of the thermometer or the like.

b)Circulation method

Although this method can clean in shorter time than that required by the still standing method, be careful that the circulation pump may be damaged if using cleaning agent with strong corrosive characteristics.

- After completing washing work, fully recover the washing liquid through the water discharge plug installed at the bottom of the piping and that at the heat exchanger.
- Conduct water washing for three times or more after removing cleaning agent. If this can not be made satisfactorily, apply neutralization treatment. Full replacement of water can be ascertained by measuring the PH of the water.
- Note that it may be required to control the cleaning time depending on the scale generation or water quality.
- At cleaning work, remove or shut down the instruments like water pressure gauges so that the cleaning liquid will not enter into them.
- Check for the connections of piping beforehand so that cleaning agent will not leak from the piping during cleaning work.
- Start cleaning operation after fully mixing the cleaning agent with water.
- Cleaning at the earlier timing is recommended as the removal of scale will be difficult if it has accumulated seriously. Periodical cleaning is necessary in a district with inferior water quality.
- Conduct water washing sufficiently with clear water after cleaning work as all cleaning agents own strong acidity.
- To verify the completion of cleaning, remove the hose and observe the inner wall of the piping whether it is clean.
- Be sufficiently careful for fire when using inflammable cleaning agent (GOSPEL R).

Circulation method cleaning device



Example of cleaning agents

Name	Shape	Condensation	Time	Makers
CLEARLITE RK	Powder/Liquid	10~20%	2~3Hr.	Koei Kagaku
CLEARLITE ACE	Powder/Liquid	3~5%	1~3Hr.	Koei Kagaku
GOSPEL R	Liquid	7% (Upper limit 10%, lower limit 5%)	1~4Hr.	Gospel Kako
GOSPEL SR	Powder			
ADDITION DR	Powder			Marusan
SS-100	Liquid			Seiwa kogyo
NEOLUX F	Powder			
DISCALER	Powder	4~7%		Saver Kagaku

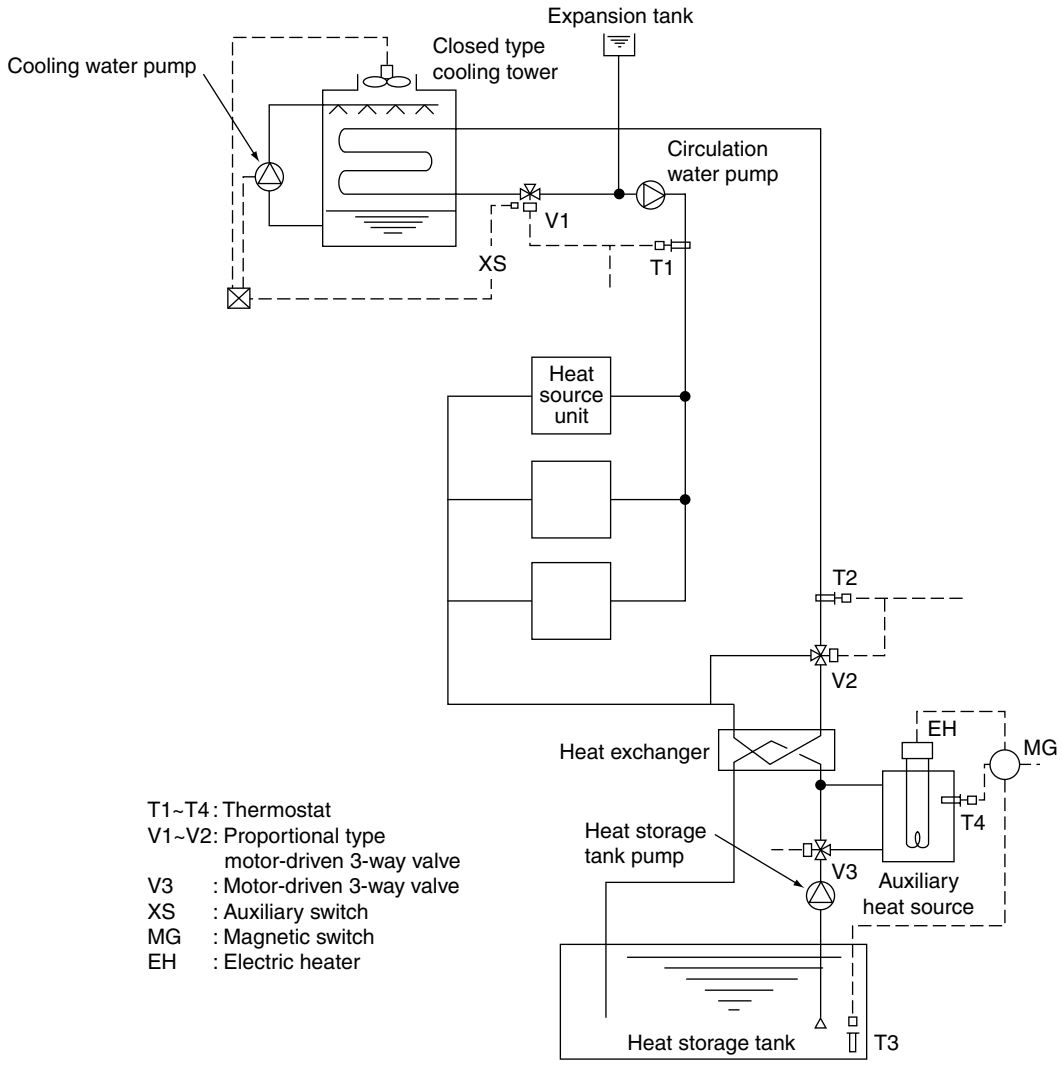
6) Practical System Examples and Circulation Water Control

Since the CITY MULTI WR2 is of water heat source system, versatile systems can be constituted by combining it with various heat sources.

The practical system examples are given below.

Either cooling or heating operation can be performed if the circulation water temperature of the CITY MULTI WR2 stays within a range of 15~45˚C. However, the circulation water temperature near 32˚C for cooling and 20˚C for heating is recommended by taking the life, power consumption and capacity of the air conditioning units into consideration. The detail of the control is also shown below.

Example-1 Combination of closed type cooling tower and hot water heat storage tank (using underground hollow slab)



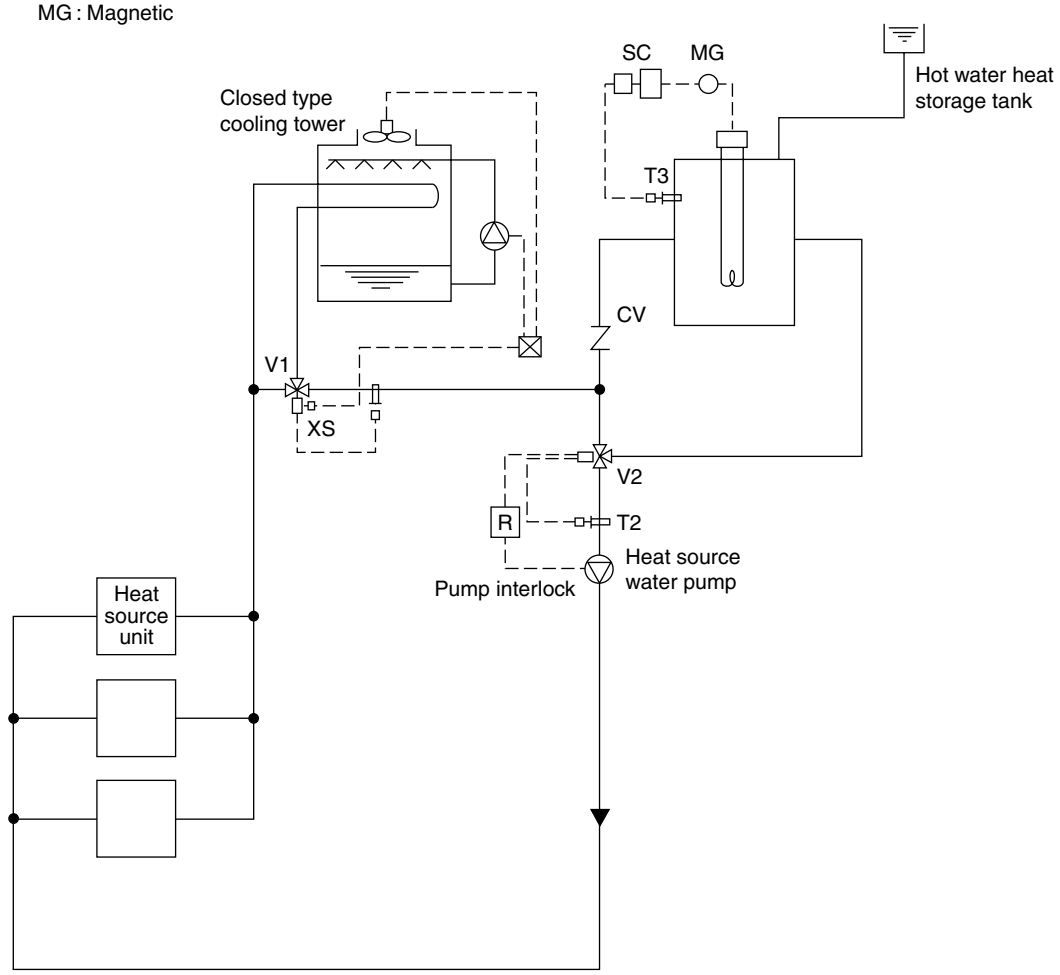
By detecting the circulation water temperature of the CITY MULTI WR2 system with T1 (around 32˚C) and T2 (around 20˚C), the temperature will be controlled by opening/closing V1 in the summer and V2 in the winter.

In the summer, as the circulation water temperature rises exceeding the set temperature of T1, the bypass port of V1 will open to lower the circulation water temperature. While in the winter, as the circulation water temperature drops, V2 will open following the command of T2 to rise the circulation water temperature.

The water inside the heat storage tank will be heated by the auxiliary heat source by V3 being opened with timer operation in the night-time. The electric heater of the auxiliary heat source will be controlled by T3 and the timer. The start/stop control of the fan and pump of the closed type cooling tower is applied with the step control of the fan and pump following the command of the auxiliary switch XS of V1, that operates only the fan at the light load while the fan and pump at the maximum load thus controlling water temperature and saving motor power.

Example-2 Combination of closed type cooling tower and hot water heat storage tank

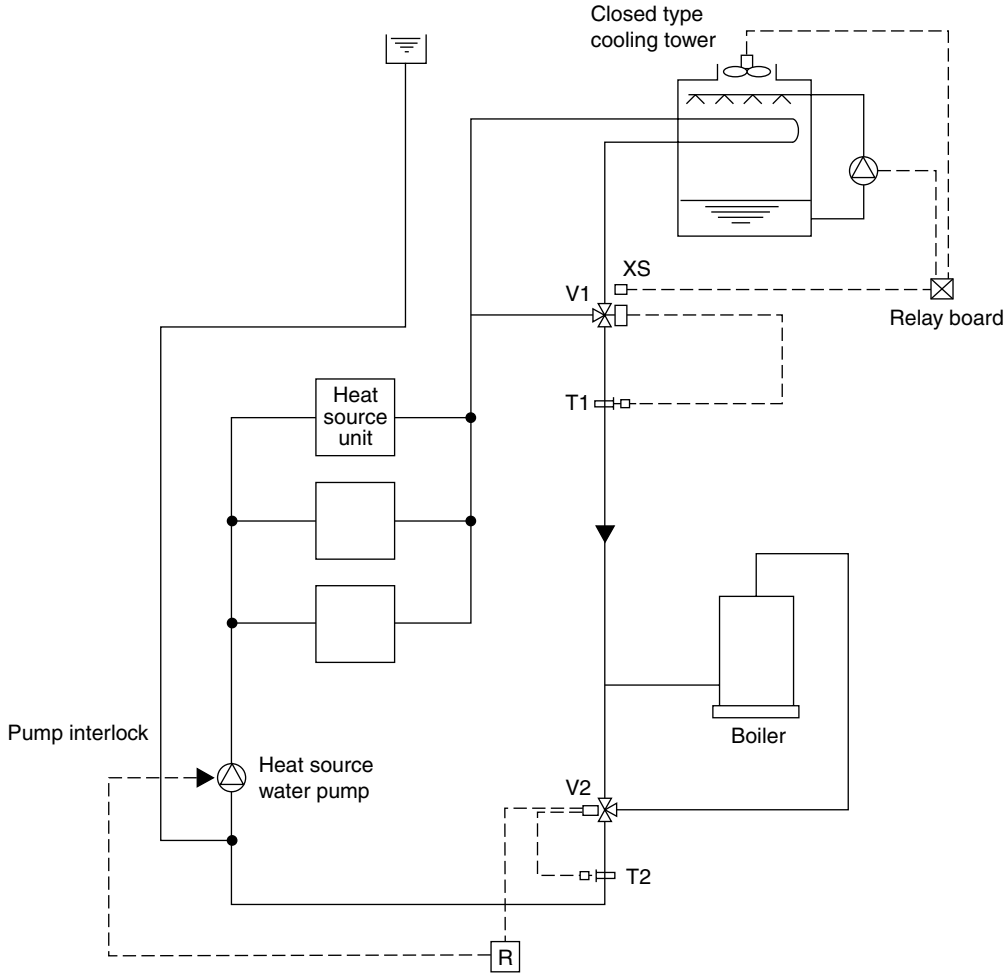
T1 : Proportional type, insertion system thermostat
T2 : Proportional type, insertion system thermostat
T3 : Proportional type, insertion system thermostat
V1 : Proportional type, motor-driven 3-way valve
V2 : Proportional type, motor-driven 3-way valve
XS : Auxiliary switch (Duplex switch type)
SC : Step controller
R : Relay
MG : Magnetic



=In the summer, as the circulation water temperature rises exceeding the set temperature of T1, the bypass port of V1 will open to lower the circulation water temperature. In the winter, if the circulation water temperature stays below 25˚C, V2 will open/close by the command of T2 to keep the circulation water temperature constant.
The temperature of the hot water inside the heat storage tank will be controlled through the step control of the electric heater by step controller operation following the command of T3.
During the stopping of the heat source water pump, the bypass port of V2 will be closed fully by interlocking thus preventing the high temperature water from entering into the system at the starting of the pump.
The start/stop control of the fan and pump of the closed type cooling tower is applied with the step control of the fan and pump following the command of the auxiliary switch XS of V1, that operates only the fan at the light load while the fan and pump at the maximum load thus controlling water temperature and saving motor power.

Example-3 Combination of closed type cooling tower and boiler

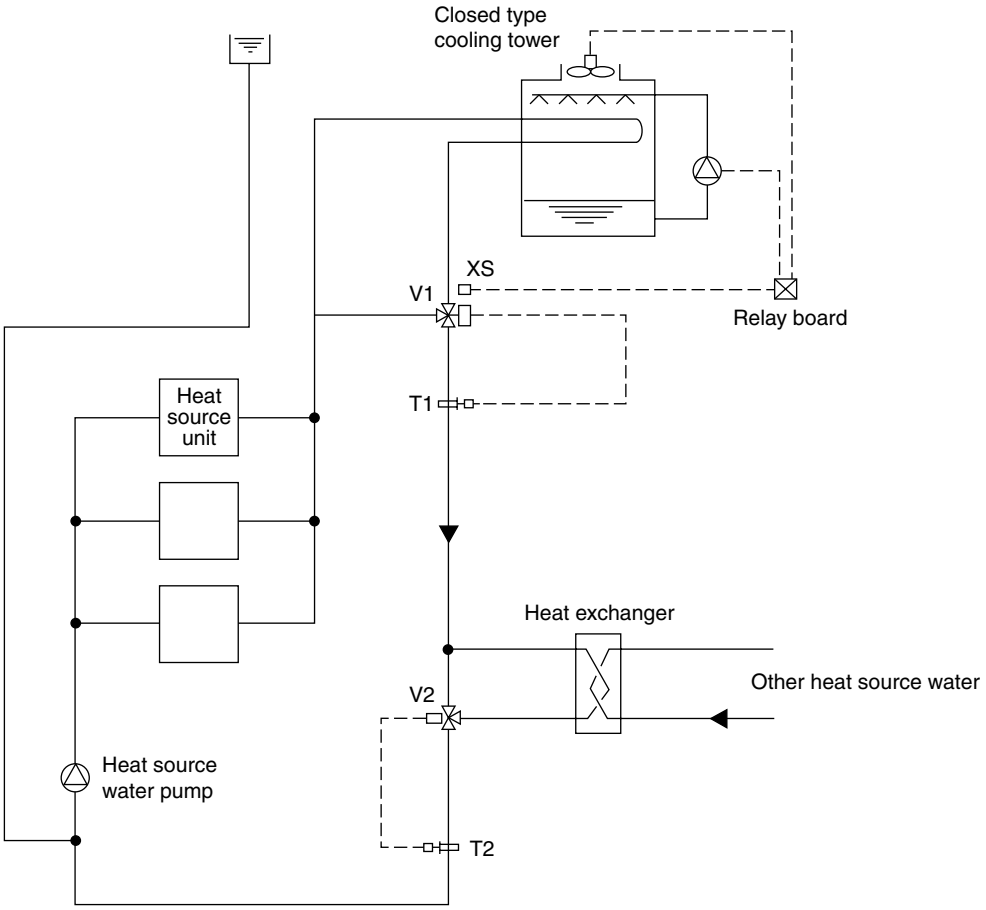
T1 : Proportional type, insertion system thermostat
T2 : Proportional type, insertion system thermostat
T3 : Proportional type, insertion system thermostat
V1 : Proportional type, motor-driven 3-way valve
S : Selector switch
R : Relay
XS : Auxiliary switch (Duplex switch type)



In the summer, as the circulation water temperature rises exceeding the set temperature of T1, the bypass port of V1 will close to lower the circulation water temperature. In the winter, if the circulation water temperature drops below 25˚C, V2 will conduct water temperature control to keep the circulation water temperature constant.
During the stopping of the heat source water pump, the bypass port of V2 will be closed fully by interlocking.
The start/stop control of the fan and pump of the closed type cooling tower is applied with the step control following the command of the auxiliary switch XS of V1, thus controlling water temperature and saving motor power.

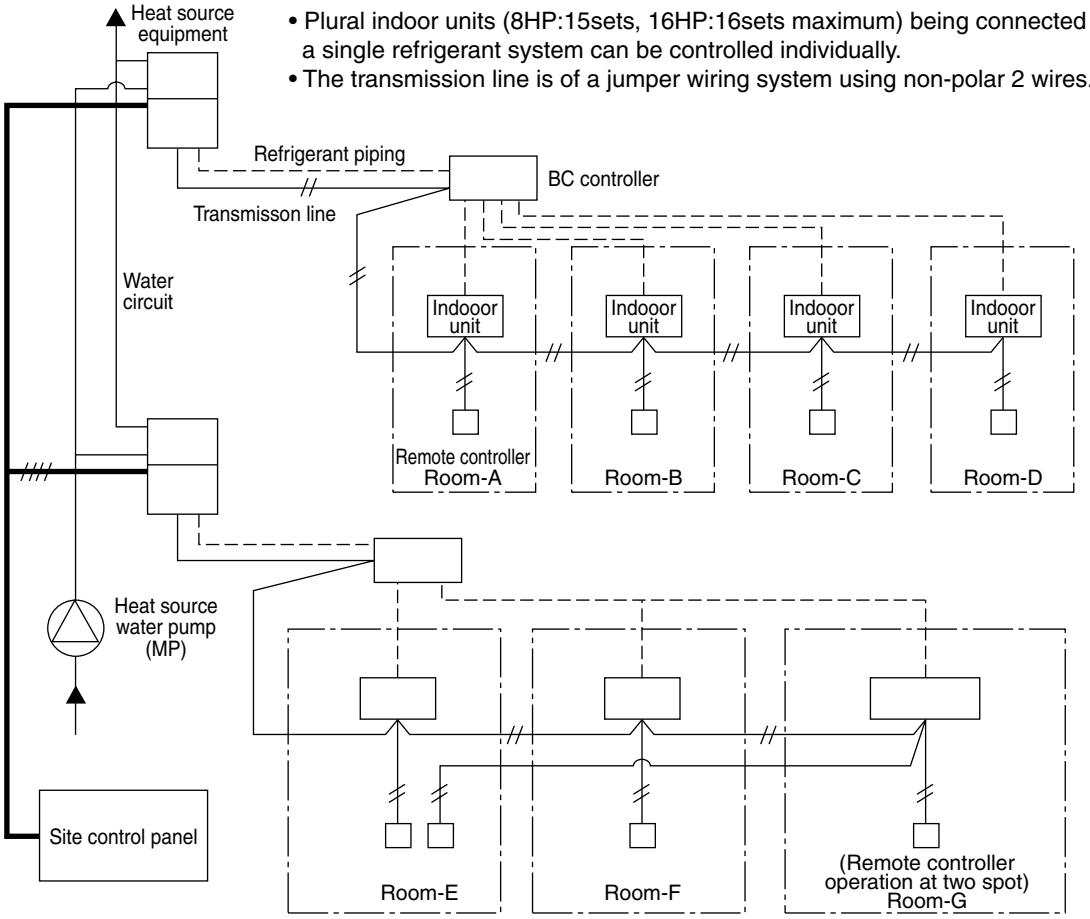
Example-4 Combination of closed type cooling tower and heat exchanger (of other heat source)

T1 : Proportional type, insertion system thermostat
T2 : Proportional type, insertion system thermostat
V1 : Proportional type, motor-driven 3-way valve
V2 : Proportional type, motor-driven 3-way valve
S : Selector switch
R : Relay
XS : Auxiliary switch (Duplex switch type)



In the summer, as the circulation water temperature rises exceeding the set temperature of T1, the bypass port of V1 will close to lower the circulation water temperature. In the winter, if the circulation water temperature drops below 26˚C, V2 will conduct water temperature control to keep the circulation water temperature constant.
During the stopping of the heat source water pump, the bypass port of V2 will be closed fully by interlocking.
The start/stop control of the fan and pump of the closed type cooling tower is applied with the step control following the command of the auxiliary switch XS of V1, thus controlling water temperature and saving motor power.

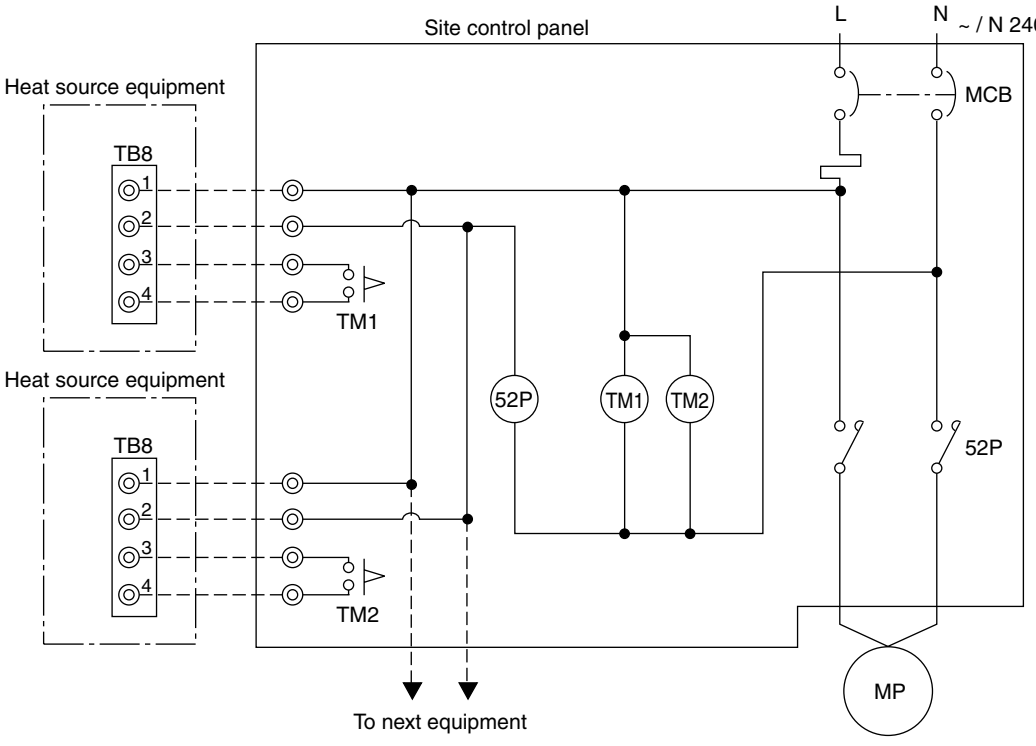
7) Pump interlock circuit



- Plural indoor units (8HP:15sets, 16HP:16sets maximum) being connected to a single refrigerant system can be controlled individually.
- The transmission line is of a jumper wiring system using non-polar 2 wires.

Wiring diagram

This circuit uses the "Terminal block for pump interlock (TB8)" inside the electrical parts box of the heat source equipment. This circuit is for interlocking of the heat source equipment operation and the heat source water pump.



X : Relay
TM1, 2 : Timer relay (closes after elapsing the set time when it is powered, while opens promptly when it is not powered)
52P : Magnetic contactor for heat source water pump
MP : Heat source water pump
MCB : Circuit breaker

*Remove the short circuit wire between 3 and 4 when wiring to TB8.

Operation ON signal

Terminal No.	TB8-1, 2
Output	Relay contacts output Rated voltage : L1 - N : 220 ~ 240V Rated load : 1A
Operation	• When Dip switch 2-7 is OFF The relay closes during compressor operation. • When DIP switch 2-7 is ON. The relay closes during reception of cooling or the heating operation signal from the controller. (Note : It is output even if the thermostat is OFF (when the compressor is stopped).)

Pump Interlock

Terminal No.	TB8-3, 4
Input	Level signal
Operation	If the circuit between TB8-3 and TB8-4 is open, compressor operation is prohibited.

7-2.WATER PIPING WORK

Although the water piping for the CITY MULTI WR2 system does not differ from that for ordinary air conditioning systems, pay special attention to the items below in conducting the piping work.

1) Items to be observed on installation work

- In order to equalize piping resistance for each unit, adapt the reverse return system.
- Mount a joint and a valve onto the water outlet/inlet of the unit to allow for maintenance, inspection and replacement work. Be sure to mount a strainer at the water inlet piping of the unit. (The strainer is required at the circulation water inlet to protect the heat source unit.)

* The installation example of the heat source unit is shown right.

- Be sure to provide an air relief opening on the water piping properly, and purge air after feeding water to the piping system.
- Condensate will generate at the low temperature part inside the heat source equipment. Connect drain piping to the drain piping connection located at the bottom of the heat source equipment to discharge it outside the equipment.
- At the center of the header of the heat exchanger water inlet inside the unit, a plug for water discharge is being provided.
  Use it for maintenance work or the like.
- Mount a backflow prevention valve and a flexible joint for vibration control onto the pump.
- Provide a sleeve to the penetrating parts of the wall to prevent the piping.
- Fasten the piping with metal fitting, arrange the piping not to expose to cutting or bending force, and pay sufficient care for possible vibration.
- Be careful not to erroneously judge the position of the inlet and outlet of water.
  (Lower position : Inlet, Upper position : Outlet)

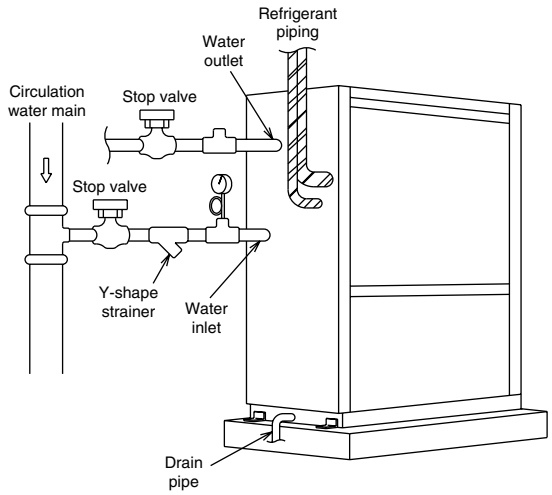
2) Thermal insulation work

Thermal insulation or antisweating work is not required for the piping inside buildings in the case of the CITY MULTI WR2 system if the operating temperature range of circulation water stays within the temperature near the normal (summer : 30˚C, winter : 20˚C).

In case of the conditions below, however, thermal insulation is required.

- Use of well water for heat source water
- Outdoor piping portions
- Indoor piping portions where freezing may be caused in winter
- A place where vapor condensation may be generated on piping due to an increase in dry bulb temperature inside the ceiling caused by the entry of fresh outdoor air
- Drain piping portions

Installation example of heat source unit



3) Water treatment and water quality control

For the circulation water cooling tower of the CITY MULTI WR2 system, employment of the closed type is recommended to keep water quality. However, in the case that an open type cooling tower is employed or the circulating water quality is inferior, scale will adhere onto the water heat exchanger leading to the decreased heat exchange capacity or the corrosion of the heat exchanger. Be sufficiently careful for water quality control and water treatment at the installation of the circulation water system.

- Removal of impurities inside piping
  Be careful not to allow impurities such as welding fragment, remaining sealing material and rust from mixing into the piping during installation work.
- Water treatment
  The water quality standards have been established by the industry (Japan Refrigeration, Air Conditioning Industry Association, in case of Japan) for water treatment to be applied.
  In order to keep the water quality within such standards, you are kindly requested to conduct bleeding-off by overflow and periodical water quality tests, and use inhibitors to suppress condensation or corrosion. Since piping may be corroded by some kinds of inhibitor, consult an appropriate water treatment expert for proper water treatment.

(4) Pump interlock

Operating the heat source unit without circulation water inside the water piping can cause a trouble. Be sure to provide interlocking for the unit operation and water circuit. Since the terminal block is being provided inside the unit, use it as required.

PUY-P200YMF-C, PUY-P250YMF-C

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1. Specifications

Model name			PUY-P200YMF-C
			Cooling
Capacity		kW	∗1 22.4
		kcal/h	∗2 20,000
Power source			3N ~ 380/400/415V 50/60Hz
Power input		kW	8.64
Current		A	14.5/13.8/13.3
Fan	Type × Quantity		Propeller fan × 1
	Airflow rate	m^3/min	185
	Motor output	kW	0.38
Compressor	Type		Hermetic
	Motor output	kW	5.5
	Crankcase heater	kW	0.062(240V)
Refrigerant / Lubricant			R407C/MEL32
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>
External dimension		mm	1715(H)×990(W)×840(L)
Protection devices	High pressure protection		2.94MPa
	Compressor / Fan		Over current protection / Thermal switch
	Inverter		DC bus current protection, thermal switch
Refrigerant piping diameter	Liquid / Gas		ø12.7 flare /ø25.4 Flange
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity
	Model / Quantity		Model 20 ~ 250 / 1 ~ 13
Noise level		dB<A>	56
Net weight		kg	223
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (0˚CDB ~ 43˚CDB with outdoor unit at lower position)

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

∗1 **Cooling** Indoor : 27˚CDB/19˚CWB Outdoor : 35˚CDB Pipe length : 7.5m Height difference : 0m

∗2 **Cooling** Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB Pipe length : 5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

Model name				PUY-P250YMF-C
				Cooling
Capacity		kW	∗1	28.0
		kcal/h	∗2	25,000
Power source				3N ~ 380/400/415V 50/60Hz
Power input		kW		10.89
Current		A		18.3/17.4/16.8
Fan	Type × Quantity			Propeller fan × 1
	Airflow rate	m^3/min		185
	Motor output	kW		0.38
Compressor	Type			Hermetic
	Motor output	kW		7.5
	Crankcase heater	kW		0.062(240V)
Refrigerant / Lubricant				R407C/Polyol ester oil (POE)
External finish				Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>
External dimension		mm		1715(H)×990(W)×840(L)
Protection devices	High pressure protection			2.94MPa
	Compressor / Fan			Over current protection / Thermal switch
	Inverter			DC bus current protection, thermal switch
Refrigerant piping diameter	Liquid / Gas			ø12.7 flare /ø28.58 Flange
Indoor unit	Total capacity			50 ~ 130% of outdoor unit capacity
	Model / Quantity			Model 20 ~ 250 / 1 ~ 16
Noise level		dB<A>		57
Net weight		kg		230
Operating temperature range				Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (0˚CDB ~ 43˚CDB with outdoor unit at lower position)

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

∗1 **Cooling** Indoor : 27˚CDB/19˚CWB Outdoor : 35˚CDB Pipe length : 7.5m Height difference : 0m

∗2 **Cooling** Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB Pipe length : 5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

2. Capacity tables

2-1. Correction by temperature

Cooling

• Standard Specifications

		PUY-P200YMF-C	PUY-P250YMF-C
Capacity	kW	22.4	28.0
Input	kW	8.64	10.89
Source	V	380/400/415	
Current	A	14.5/13.8/13.3	13.4/12.7/12.3

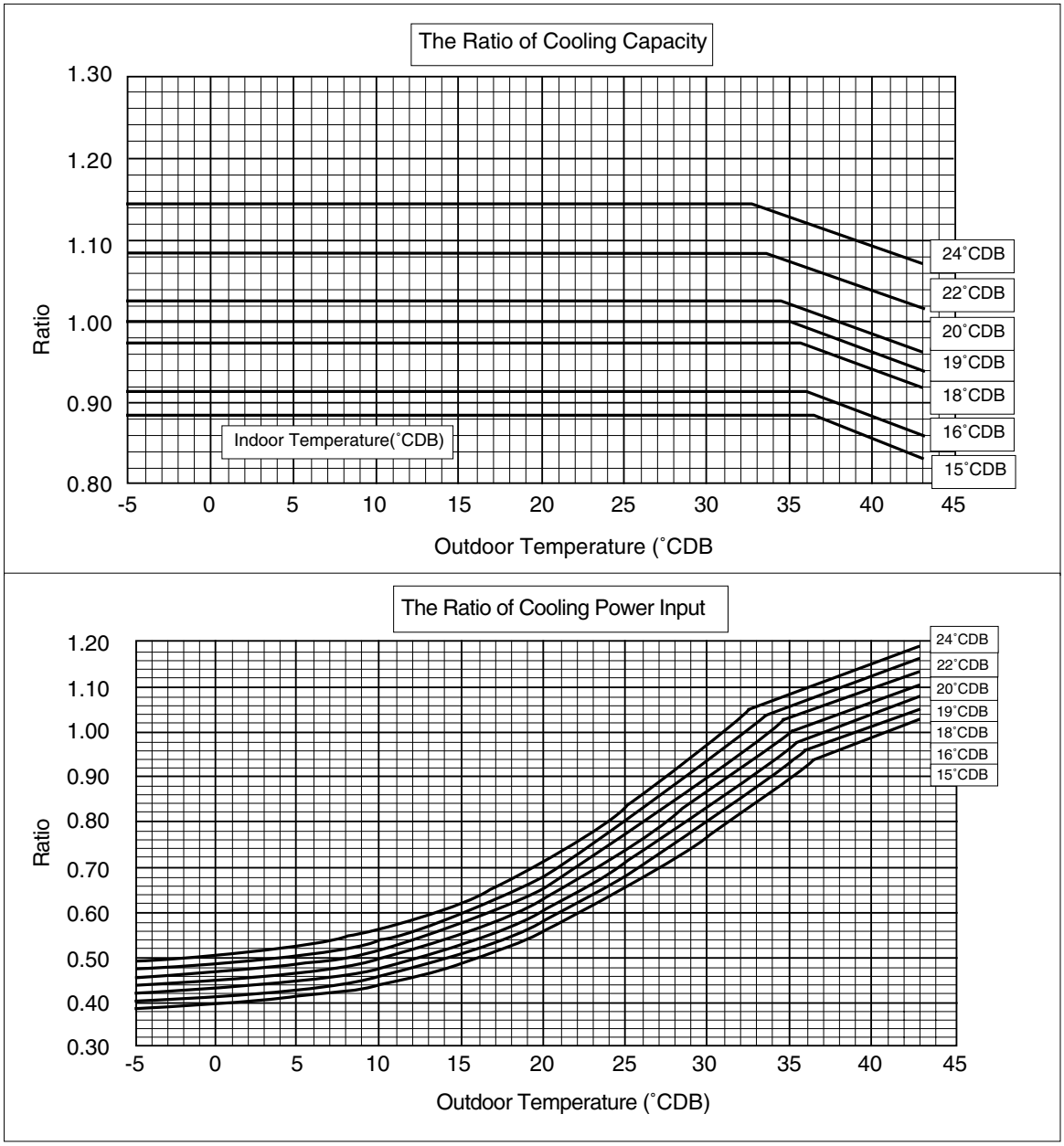
• Calculation

$$\text{Capacity}' = \text{Capacity} \times \text{Ratio}$$

$$\text{Input}' = \text{Input} \times \text{Ratio}$$

$$\text{Current}' = \frac{\text{Input}' \times 1000}{\sqrt{3} \times \text{Source} \times 0.90}$$

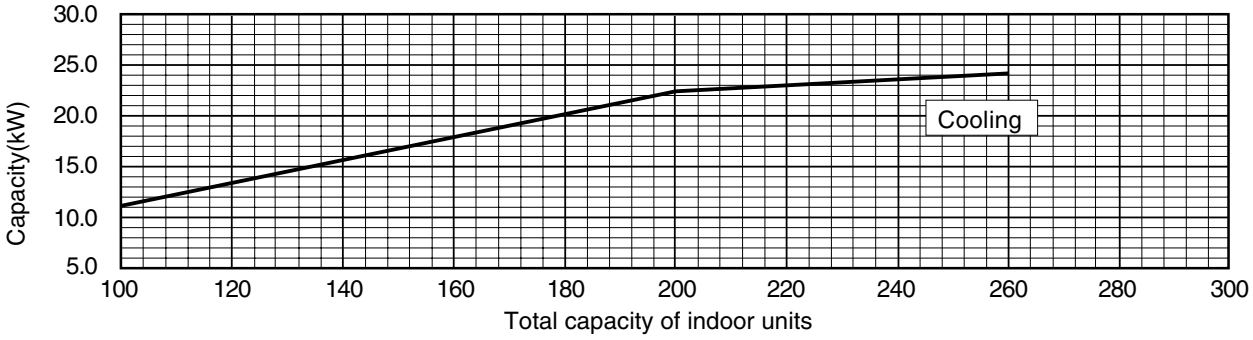
※ Capacity', Input', Current' — After correction



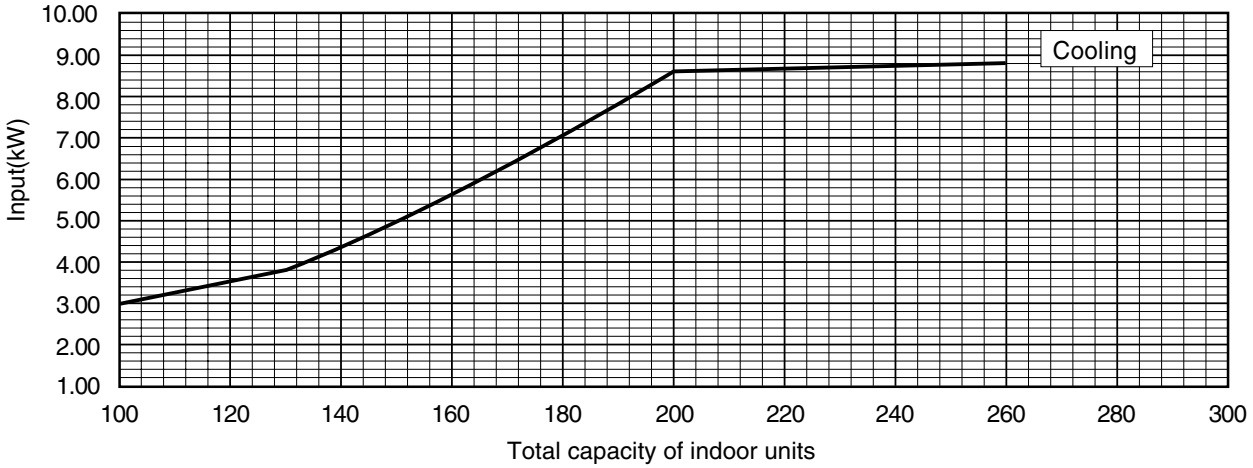
2-2. Correction by total indoor

PUY-P200YMF-C

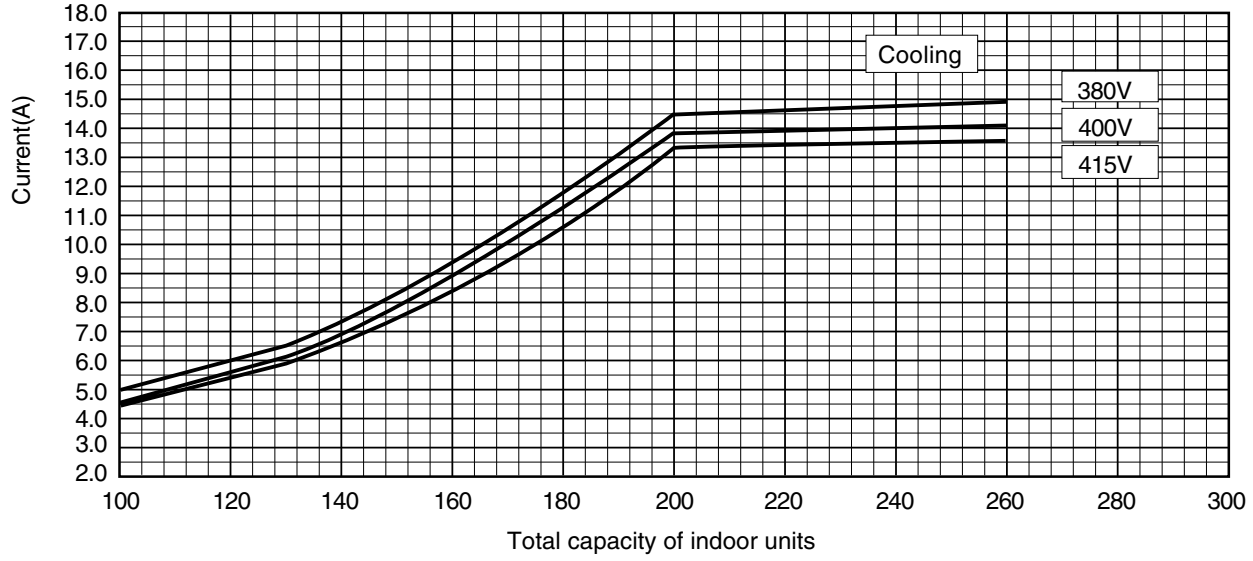
1) Capacity



2) Input

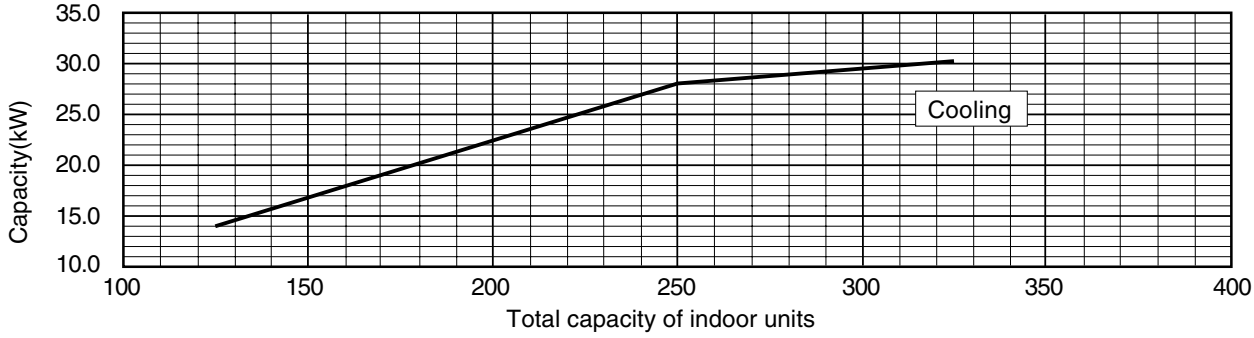


3) Current

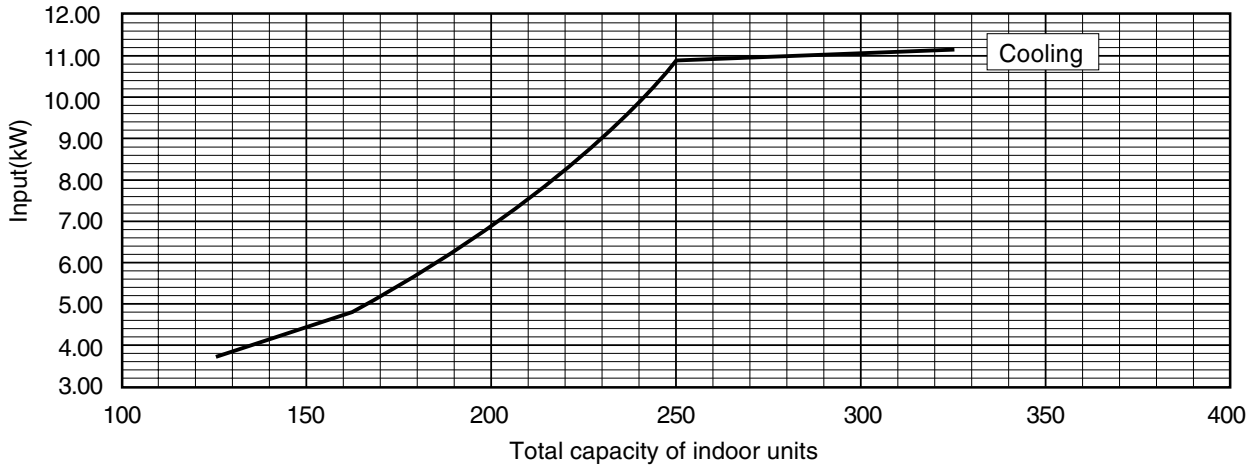


PUY-P250YMF-C

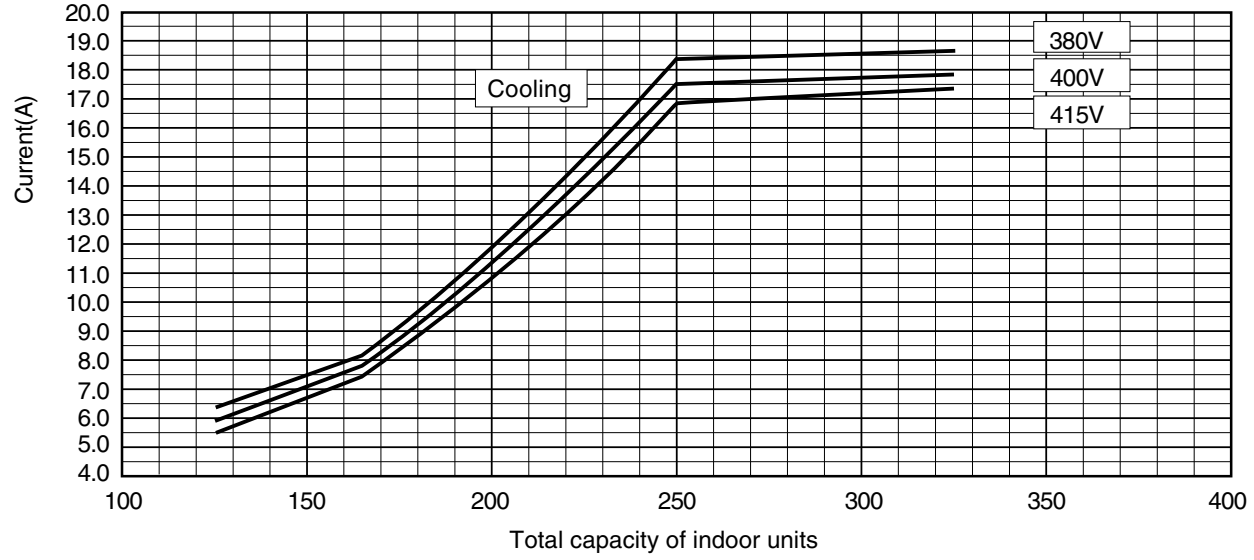
1) Capacity



2) Input



3) Current

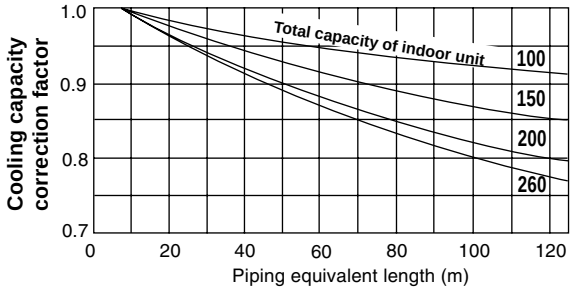


2-3 Correction by refrigerant piping length

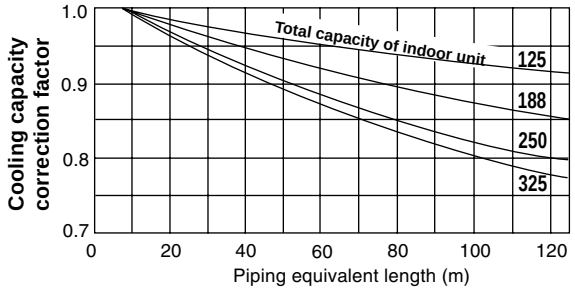
To obtain a decrease in cooling capacity due to refrigerant piping extension, multiply by the capacity correction factor based on the refrigerant piping equivalent length in the table below.

• Cooling capacity correction

PUY-P200YMF-C



PUY-P250YMF-C



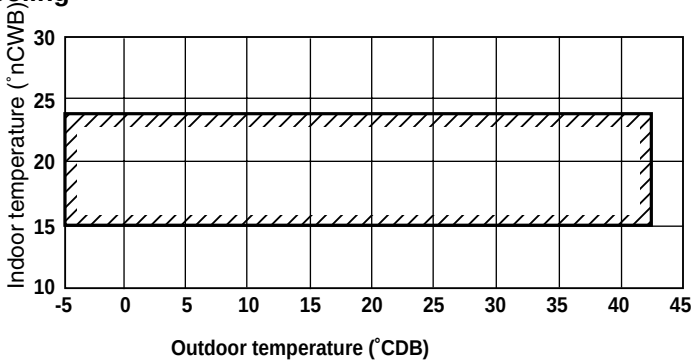
• How to obtain piping equivalent length

① **PUY-P200YMF-C**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.47 × number of bent on the piping)m

② **PUY-P250YMF-C**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 × number of bent on the piping)m

2-4 Operation limit

• Cooling

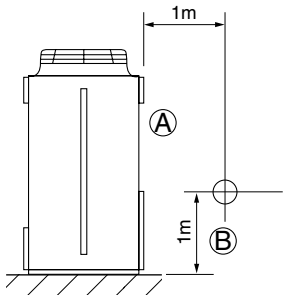


(Outdoor temperature :0˚CDB~ 43˚CDB with outdoor unit at lower position in cooling mode.)

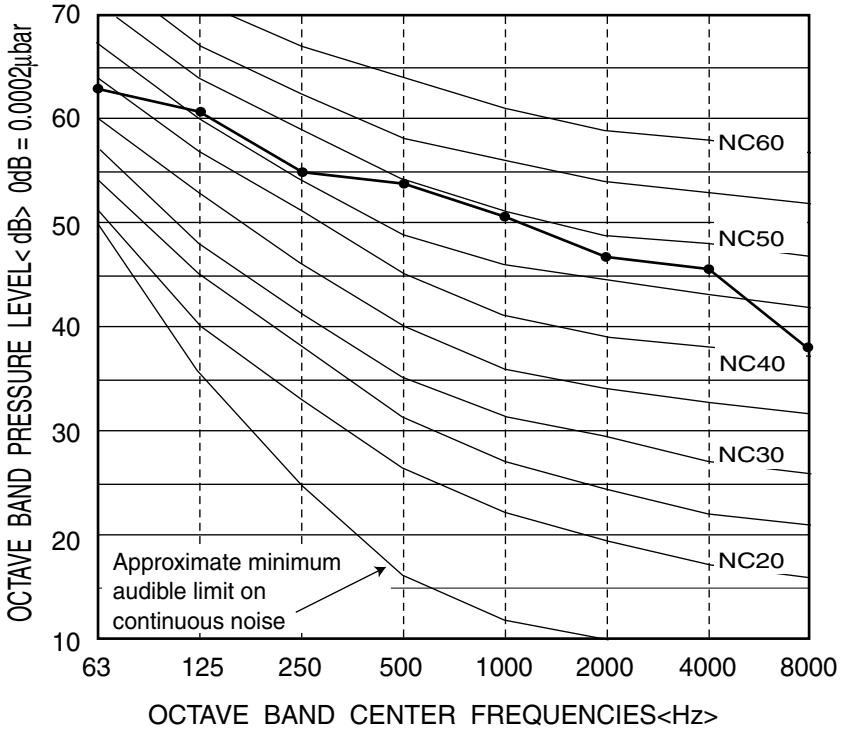
3. Sound levels

PUY-P200YMF-C

Measurement condition

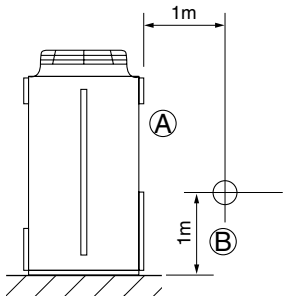


Sound pressure level in anechoic room
56 dB (A)

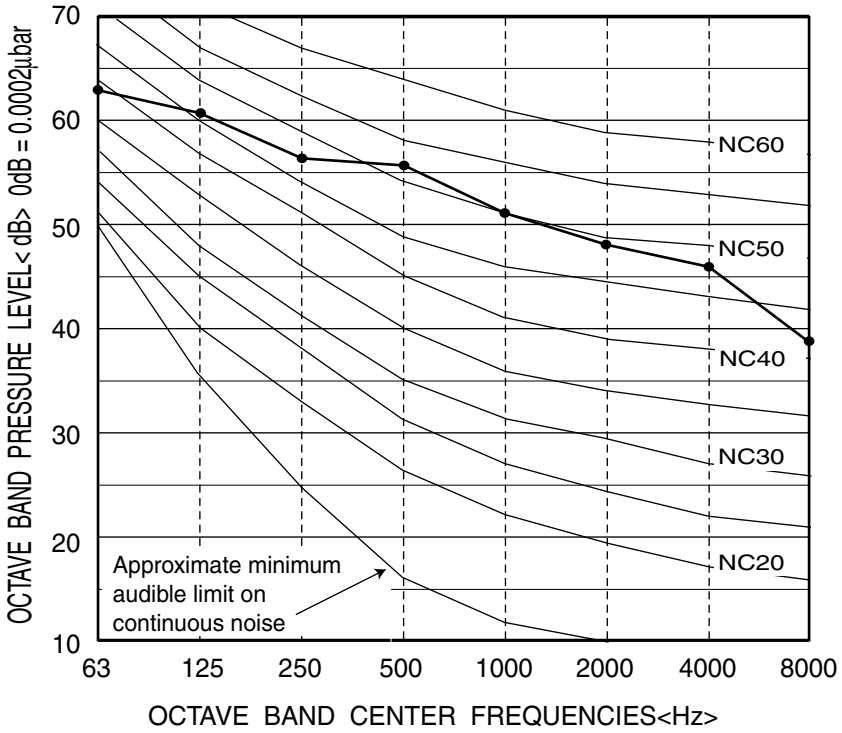


PUY-P250YMF-C

Measurement condition



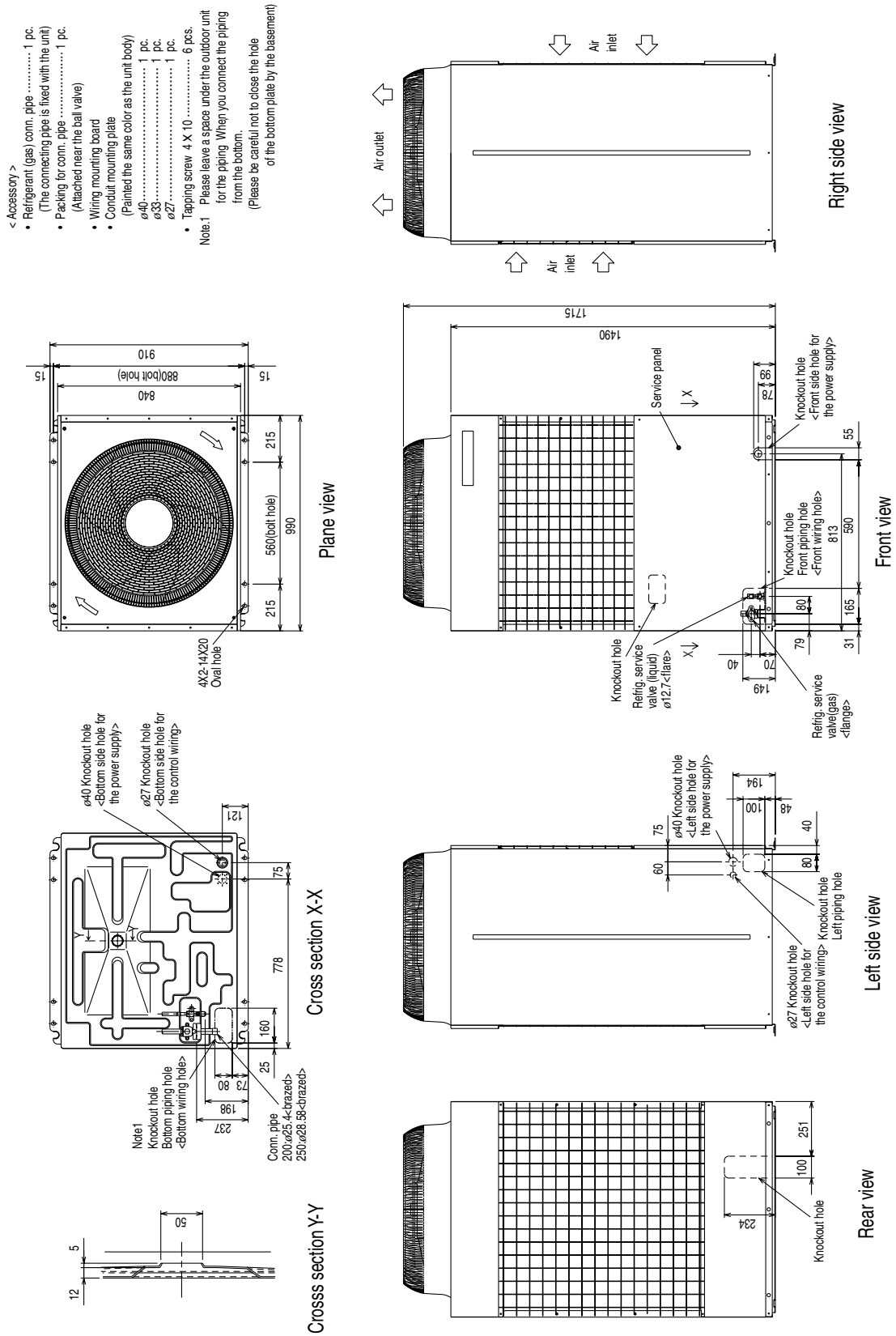
Sound pressure level in anechoic room
57 dB (A)



4. External dimensions

PUY-P200,250YMF-C

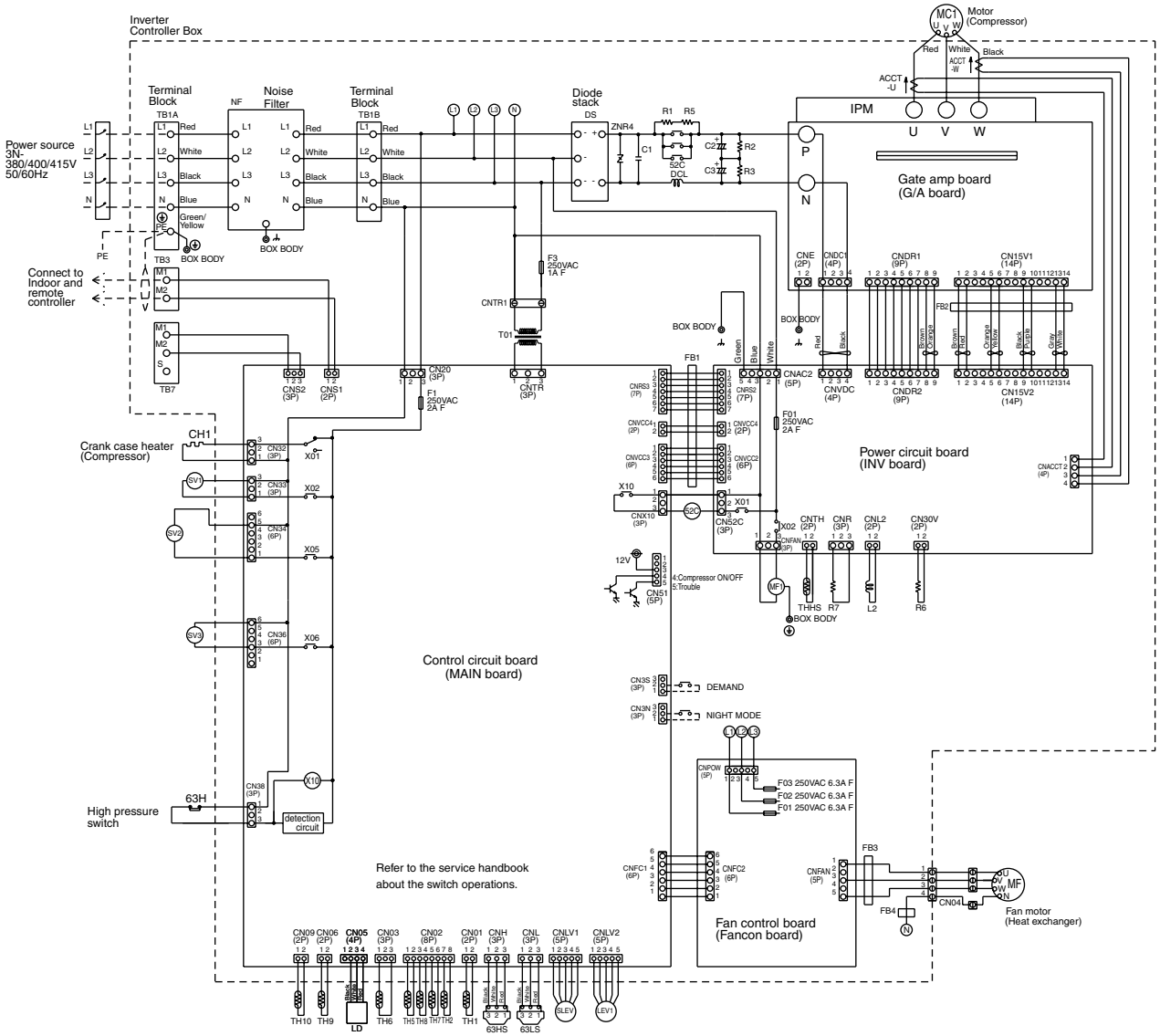
Unit : mm



C/O(R407C)

5. Electrical Wiring Diagram

PUY-P200 , 250YMF-C



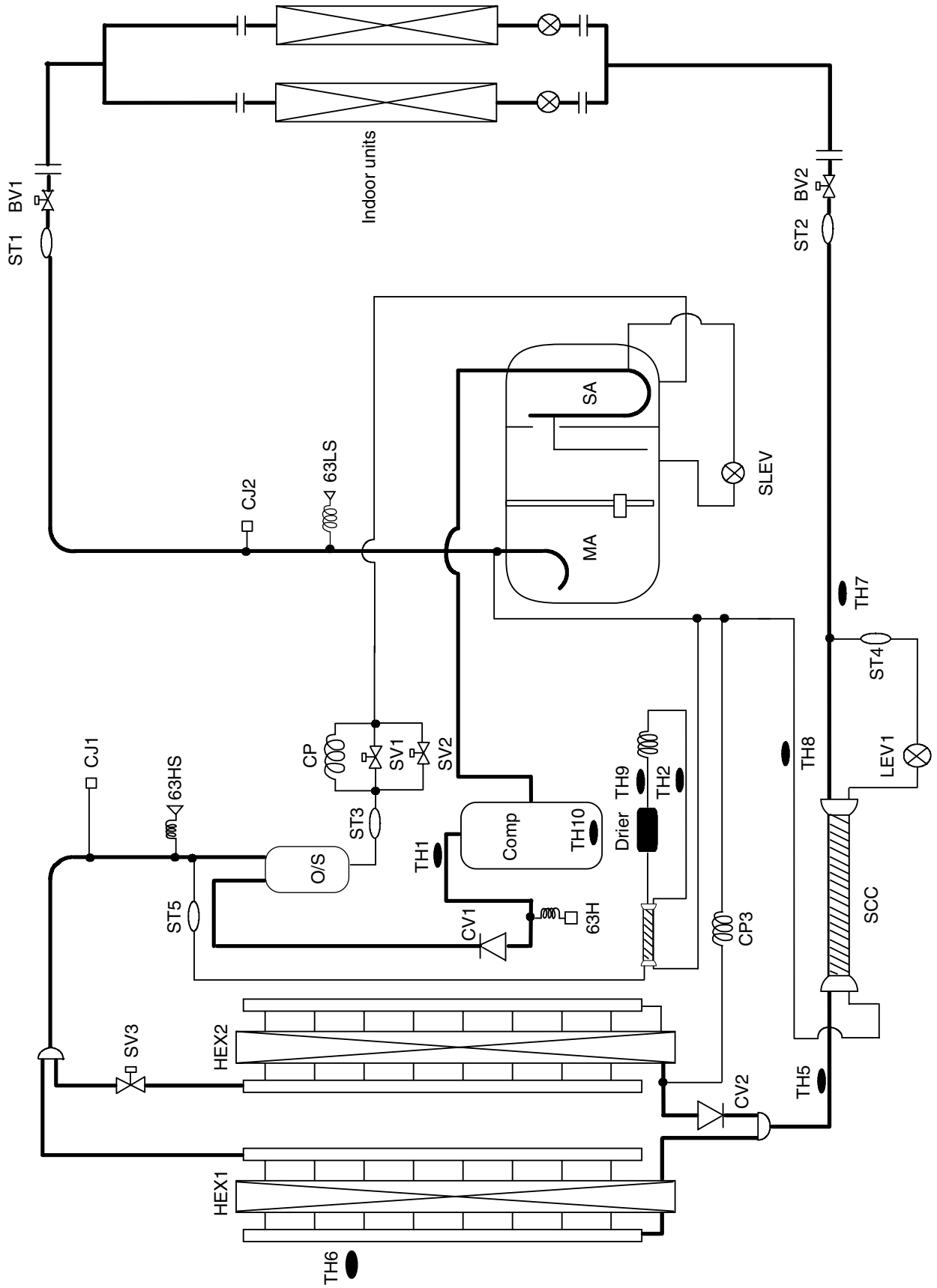
<SYMBOL EXPLANATION>

Symbol	Name	Symbol	Name	Symbol	Name	Symbol	Name
DCL	DC reactor (Power factor improvement)	LEV1	Electronic expansion valve (Sub-cool coil bypass)	TH2	Thermistor: Saturation evapo. temp. detect	TH10	Compressor shell temp.
ACCT-U,W	Current Sensor			TH5	Pipe temp. detect	THHS	Radiator panel temp. detect
ZNR4	Varistor	SLEV	Electronic expansion valve(Oil return)	TH6	OA temp. detect	X1~10	Aux. relay
52C	Magnetic contactor (Inverter main circuit)	63HS	High pressure sensor	TH7	liquid outlet temp. detect at Sub~cool coil	FB1~4	Ferrite core
MF1	Fan motor (Radiator panel)	63LS	Low pressure sensor			⏚	Earth terminal
SV1,SV2	Solenoid valve (Discharge~suction bypass)	L2	Choke coil(Transmission)	TH8	bypass outlet temp. detect at Sub~cool coil		
SV3	Solenoid valve (Heat exchanger capacity control)	IPM	Intelligent power module				
		TH1	Thermistor: Discharge pipe temp. detect	TH9	High pressure liquid. temp.		

C/O(R407C)

6. Refrigerant circuit diagram and Thermal sensor

PUY-P200 , 250YMF-C



C/O(R407C)

PUMY-125YMA

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6. Refrigerant Circuit Diagram And Thermal Sensor 117

1. Specifications

Model name			PUMY-125YMA	
			Cooling	Heating
Capacity		kW	14.0	16.0
Power source			3N ~ 380/400/415V 50Hz	
Power input		kW	5.95	5.58
Current		A	9.6/9.1/8.8	9.0/8.6/8.3
Fan	Type × Quantity		Propeller fan × 2	
	Airflow rate	m^3/min	90	
	Motor output	kW	0.06 × 2	
Compressor	Type		Hermetic	
	Motor output	kW	3.5	
	Crankcase heater	kW	-	
Refrigerant / Lubricant			R22/MS32(N-1)	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1>	
External dimension		mm	1280(H)×1020(W)×350+30(D)	
Protection devices	High pressure protection		3.0MPa	
	Compressor / Fan		Internal thermal switch / Internal thermal switch	
	Inverter		Over current protection , Overheat protection	
Refrigerant piping diameter	Liquid / Gas		ø9.52 /ø19.05 (Flare)	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 125 / 1 ~ 8	
Noise level		dB<A>	54	
Net weight		kg	127	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 46˚CDB	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB ~ 15.5˚CWB

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

Cooling Indoor : 27˚CDB/19˚CWB Outdoor : 35˚CDB

Heating Indoor : 20˚CDB Outdoor : 7˚CDB/6˚CWB

Pipe length : 7.5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

2. Capacity table

2-1. Correction by temperature

Cooling

• Standard Specifications

		PUMY-125YMA
Capacity	kW	14.0
Input	kW	5.95
Source	V	380/400/415
Current	A	9.6/9.1/8.8

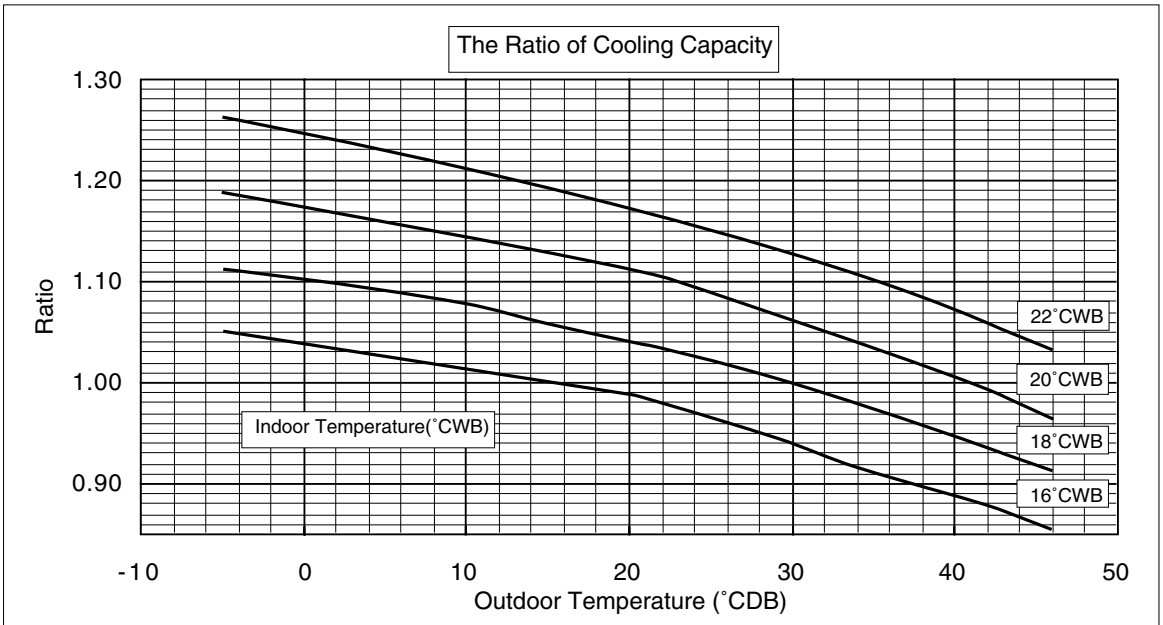
• Calculation

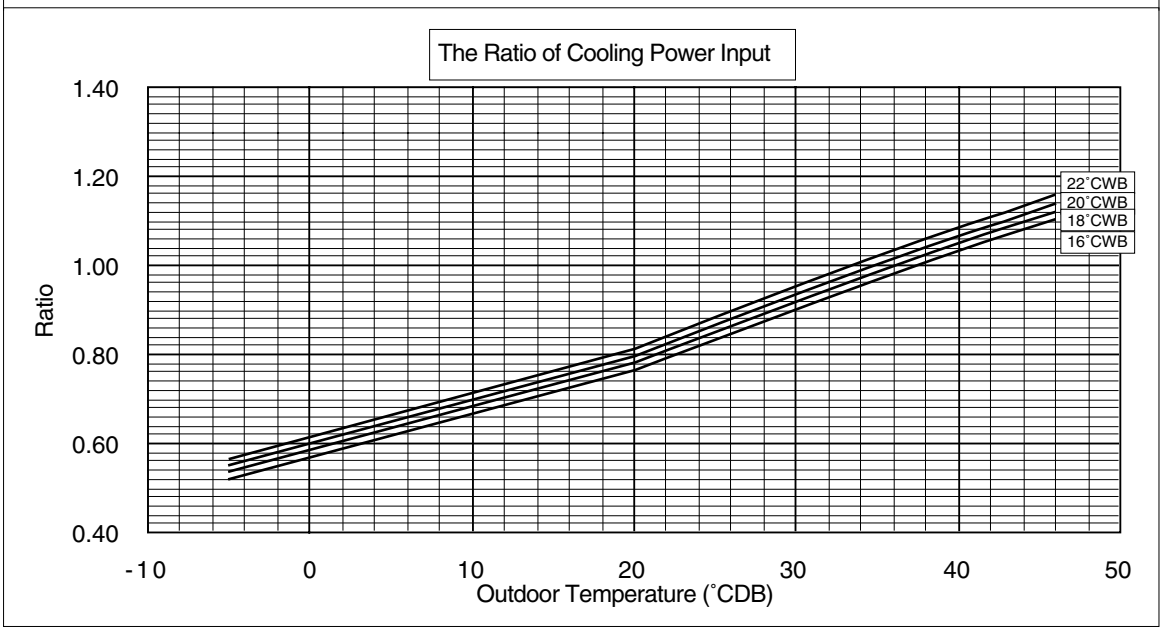
$$\text{Capacity}' = \text{Capacity} \times \text{Ratio}$$

$$\text{Input}' = \text{Input} \times \text{Ratio}$$

$$\text{Current}' = \frac{\text{Input}' \times 1000}{\sqrt{3} \times \text{Source} \times 0.94}$$

※ Capacity', Input', Current' } After correction





Heating

• Standard Specifications

		PUMY-125YMA
Capacity	kW	16.0
Input	kW	5.58
Source	V	380/400/415
Current	A	9.0/8.6/8.3

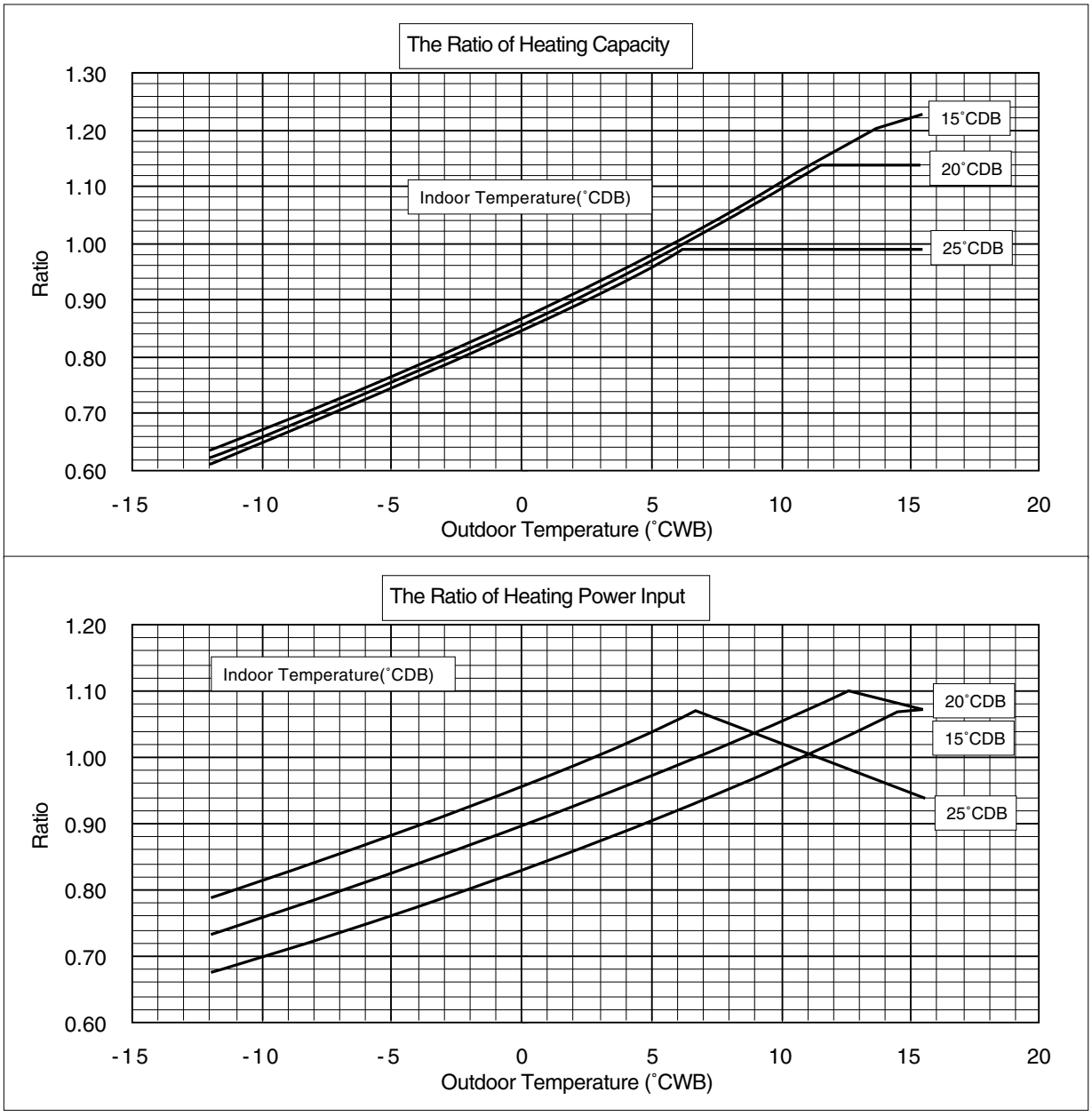
• Calculation

$$\text{Capacity}' = \text{Capacity} \times \text{Ratio}$$

$$\text{Input}' = \text{Input} \times \text{Ratio}$$

$$\text{Current}' = \frac{\text{Input}' \times 1000}{\sqrt{3} \times \text{Source} \times 0.94}$$

※Capacity'
Input'
Current'
} After correction

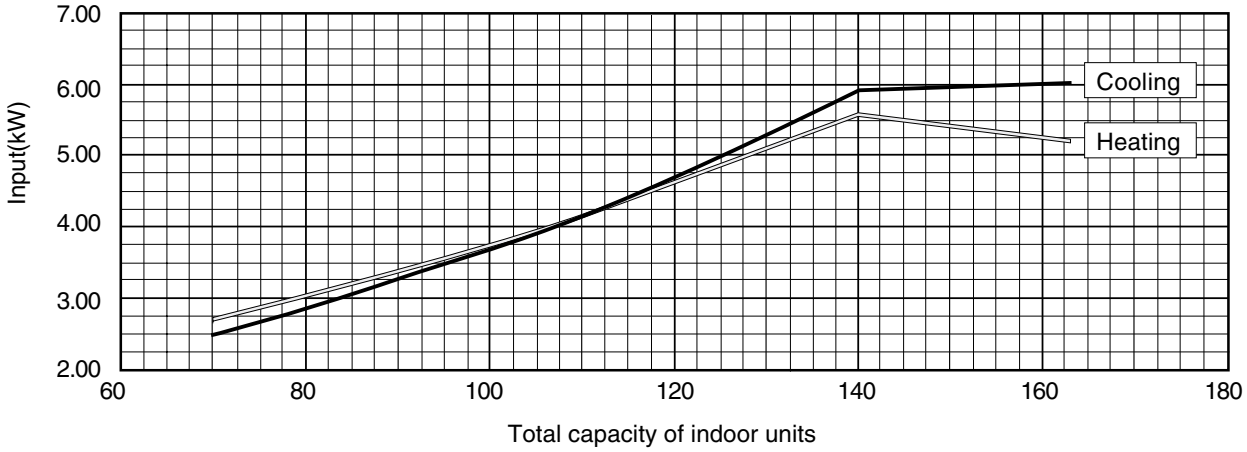


2-2. Correction by total indoor

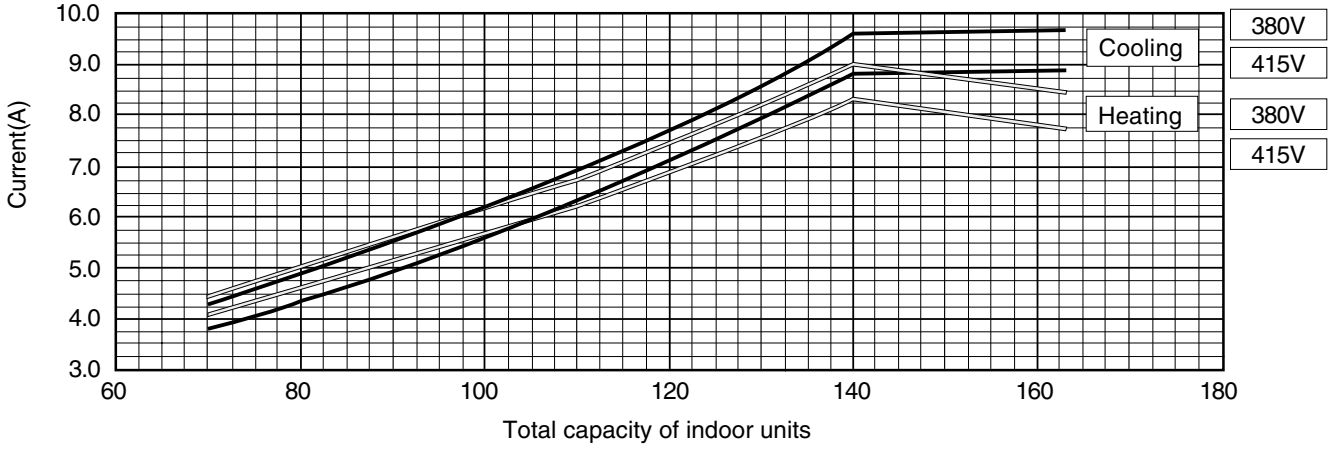
PUMY-125YMA

1) Capacity

2) Input



3) Current

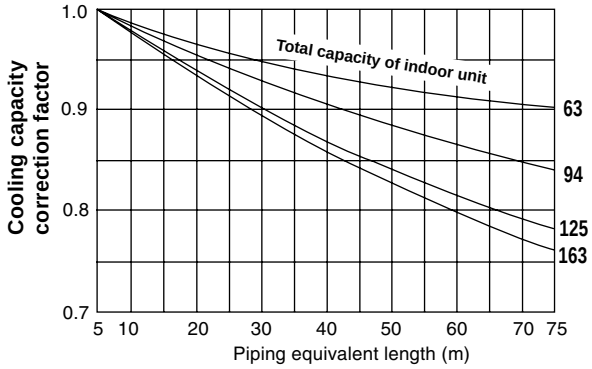


2-3 Correction by refrigerant piping length

To obtain a decrease in cooling/heating capacity due to refrigerant piping extension, multiply by the capacity correction factor based on the refrigerant piping equivalent length in the table below.

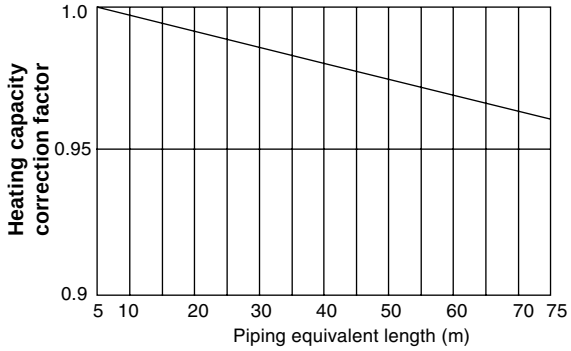
• Cooling capacity correction

PUMY-125YMA



• Heating capacity correction

PUMY-125YMA



• How to obtain piping equivalent length

① PUMY-125YMA

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.35 × number of bent on the piping)m

2-4 Correction at frosting and defrosting

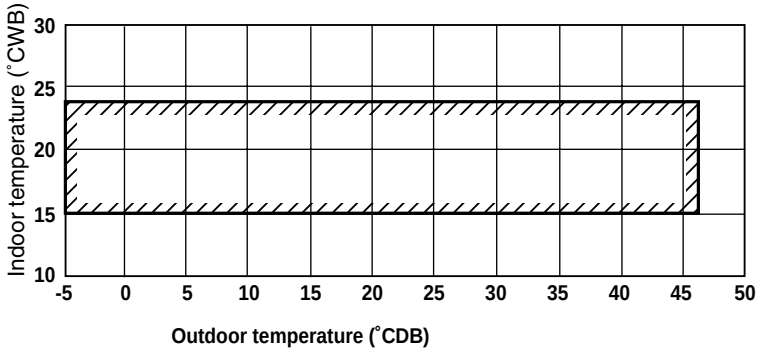
When a decrease in heating capacity due to frosted and defrosting operations is considered, the value multiplied by the correction factor in the table below represents the heating capacity.

Correction factor table

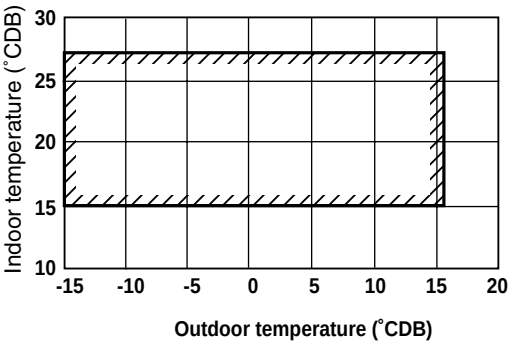
Outdoor inlet air temp (˚CWB)	6	4	2	0	-2	-4	-6	-8	-10
Correction factor	1.0	0.98	0.89	0.88	0.89	0.9	0.95	0.95	0.95

2-5 Operation limit

• Cooling



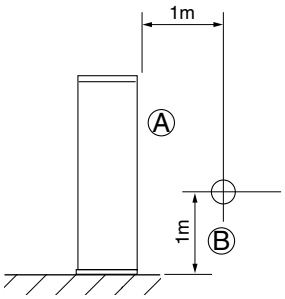
• Heating



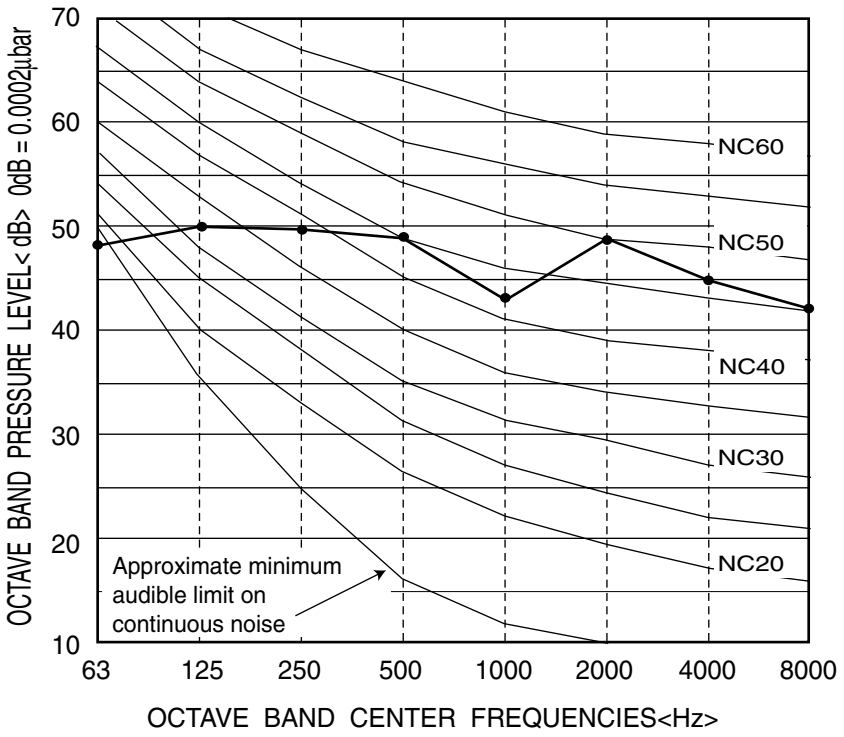
3. Sound levels

PUMY-125YMA

Measurement condition



Sound pressure level in anechoic room
57 dB (A)

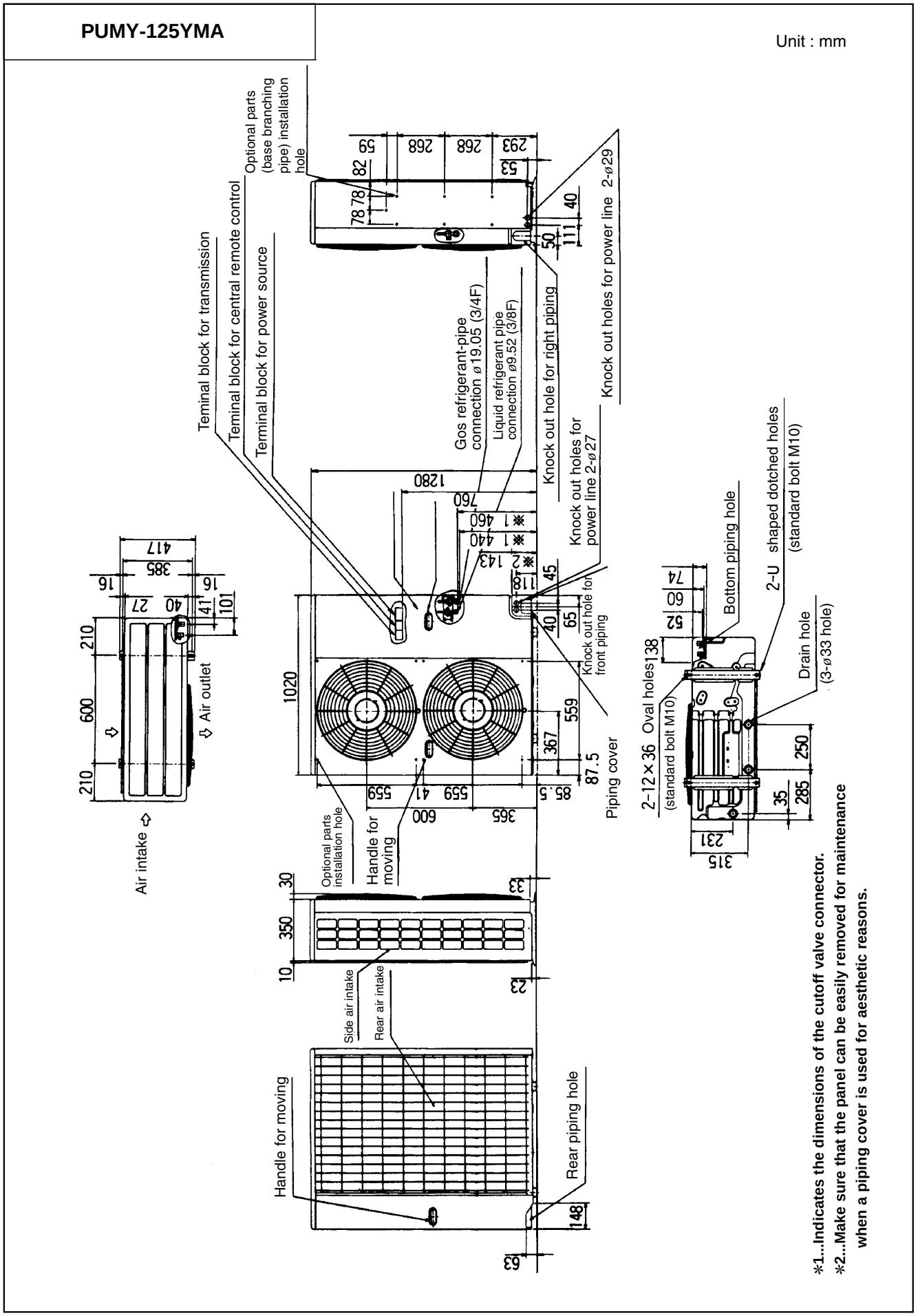


Y-5(R22)

4. External dimensions

PUMY-125YMA

Unit : mm



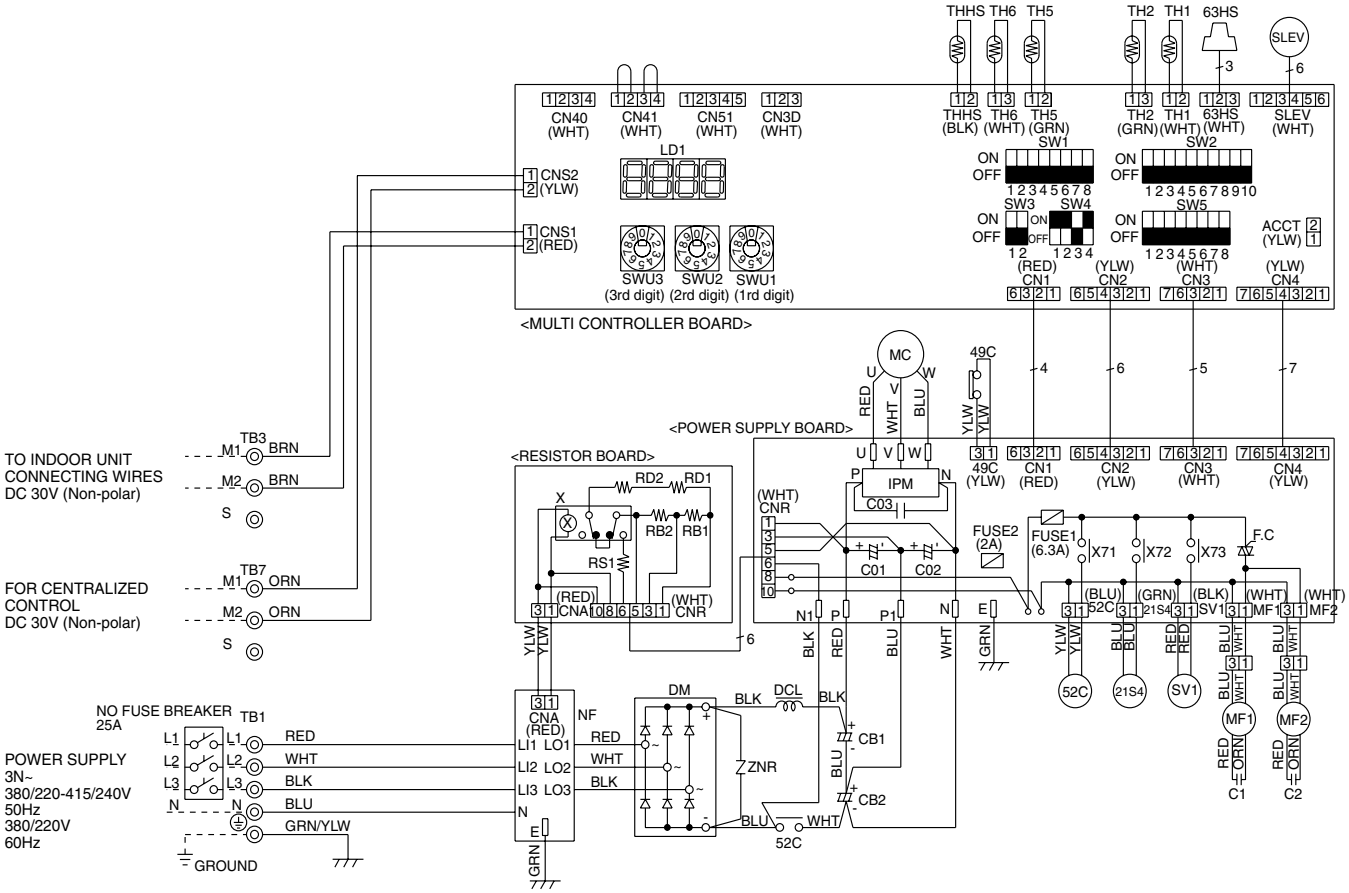
***1...Indicates the dimensions of the cutoff valve connector.**
***2...Make sure that the panel can be easily removed for maintenance when a piping cover is used for aesthetic reasons.**

Y-5(R22)

5. Electrical Wiring Diagram

PUMY-125YMA

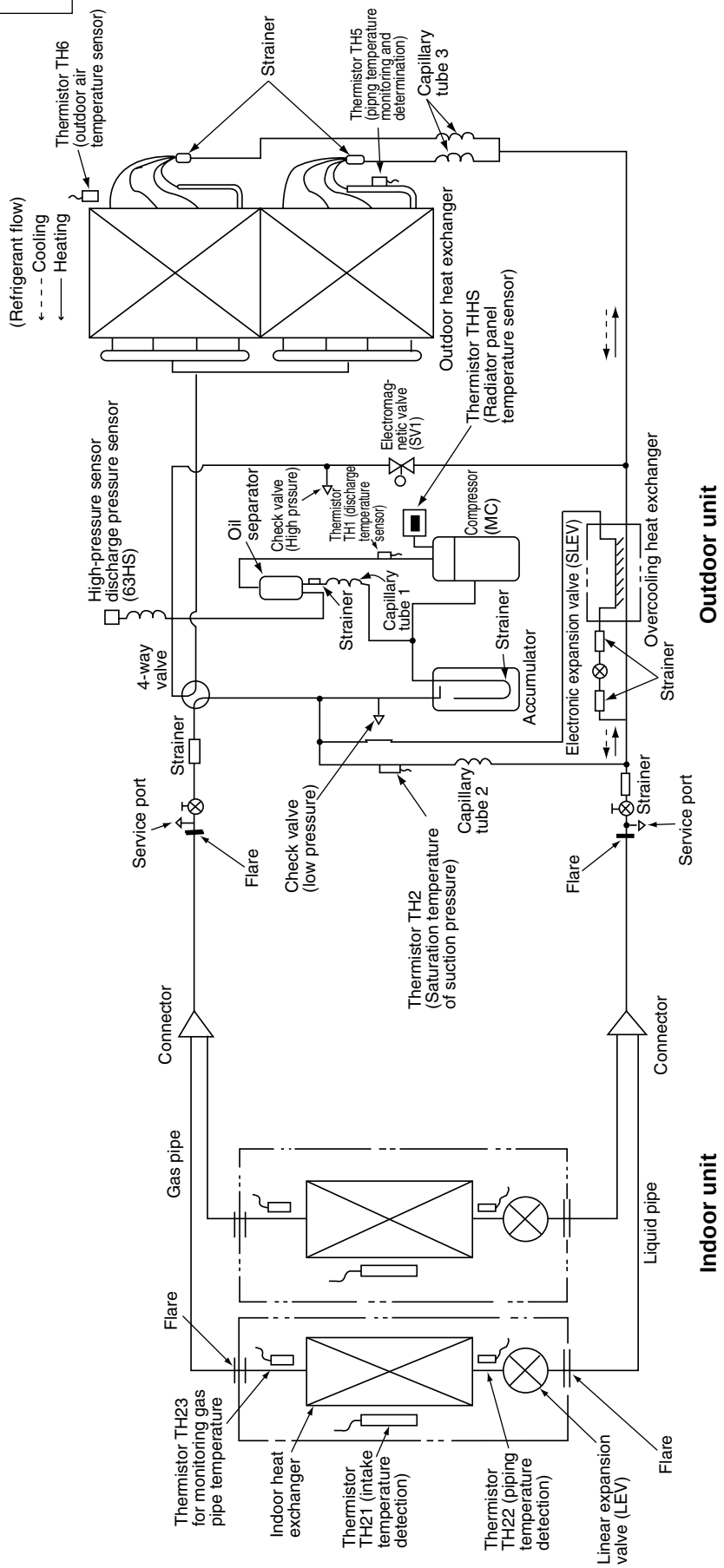
SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
ACCT	CONNECTOR<CURRENT DETECTION>	C1,C2	FAN MOTOR CAPACITOR	SV1	SOLENOID VALVE <HOT GAS BYPASS>	TH2	THERMISTOR <LOW PRESSURE SATURATED TEMP. DETECTION>
CB1,CB2	SMOOTHING CAPACITOR	DM	DIODE MODULE	SW1	SWITCH <DISPLAY SELECTION>		
CNA	CONNECTOR <POWER SUPPLY>	DCL	REACTOR	SW2	SWITCH <FUNCTION SELECTION>	TH5	THERMISTOR <PIPE TEMP. DETECTION:JUDGING DEFROST>
CNR	CONNECTOR <DISCHARGE CIRCUIT,POWER SUPPLY>	F.C	FAN CONTROL	SW3	SWITCH <TEST RUN>		
CNS1	CONNECTOR <MULTI SYSTEM>	FUSE1	FUSE(6.3A)	SW4	SWITCH <MODEL SELECTION>	TH6	THERMISTOR <OUTDOOR TEMP. DETECTION>
CNS2	CONNECTOR <CENTRALIZED CONTROL>	FUSE2	FUSE(2A)	SW5	SWITCH <FUNCTION SELECTION>	X	RELAY
CN1	CONNECTOR <CONTROLLER DRIVE CONTROL>	IPM	INTELLIGENT POWER MODULE	SWU1	SWITCH <UNIT ADDRESS SELECTION,1ST DIGIT>	X71	RELAY <MAGNETIC CONTACTOR>
CN2	CONNECTOR <POWER SYNC SIGNAL,PROTECTION>	LD1	DIGITAL INDICATION LED <OPERATION INSPECTION INDICATION>	SWU2	SWITCH <UNIT ADDRESS SELECTION,2ND DIGIT>	X72	RELAY <4-WAY VALVE>
CN3	CONNECTOR <POWER SUPPLY 30V,12V,5V>			SWU3	SWITCH <UNIT ADDRESS SELECTION,3RD DIGIT>	X73	RELAY <SOLENOID VALVE>
CN4	CONNECTOR <INVERTER SIGNAL 5V>	MC	COMPRESSOR(INNER THERMOSTAT)	TB1	TERMINAL BLOCK <POWER SUPPLY>	ZNR	VARISTOR
CN40	CONNECTOR <CENTRALIZED CONTROL POWER SUPPLY>	MF1,MF2	FAN MOTOR(INNER THERMOSTAT)	TB3	TERMINAL BLOCK <TRANSMISSION>	21S4	4-WAY VALVE
CN41	CONNECTOR <FOR STORING JUMPER CONNECTOR>	NF	NOISE FILTER	TB7	TERMINAL BLOCK <CENTRALIZED CONTROL>	49C	THERMAL SWITCH <COMPRESSOR>
CN51	CONNECTOR <COMPRESSOR DRIVE SIGNAL OUTPUT>	RS1	RESISTOR <RUSH CURRENT PROTECT>	THHS	THERMISTOR <IPM RADIATOR PANEL TEMP. DETECTION>	52C	MAGNETIC CONTACTOR
CN3D	CONNECTOR <DEMAND SIGNAL/SILENT MODE INPUT>	RB1,RB2	RESISTOR <VOLTAGE BALANCE ADJUSTMENT>			63HS	HIGH PRESSURE SENSOR <DISCHARGE PRESSURE DETECTION>
C01,C02	SMOOTHING CAPACITOR	RD1,RD2	RESISTOR <DISCHARGE>	TH1	THERMISTOR <DISCHARGE TEMP. DETECTION>		
C03	CAPACITOR <FILTER>	SLEV	EXPANSION VALVE				



1.Refer to the wiring diagrams of the indoor units for details on wiring of each indoor unit.
2.Symbols used in wiring diagram above are. ◎:Terminal block, □□□:Connector, ▯ :Insertion tab.
3.Self-diagnosis function
The indoor and outdoor units can be diagnosed automatically using the self-diagnosis switch(SW1) and LD1(LED indication) found on the multi-controller of the outdoor unit.
LED indication : Set all contacts of SW1 to OFF .

6. Refrigerant circuit diagram and Thermal sensor

PUMY-125YMA



PUHY-200YMF-C, PUHY-250YMF-C

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6. Refrigerant Circuit Diagram And Thermal Sensor 131

1. Specifications

Model name			PUHY-200YMF-C	
			Cooling	Heating
Capacity		kW	∗1 22.4	25.0
		kcal/h	∗2 20,000	-
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	8.64	7.98
Current		A	14.5/13.8/13.3	13.4/12.7/12.3
Fan	Type × Quantity		Propeller fan × 1	
	Airflow rate	m^3/min	185	
	Motor output	kW	0.38	
Compressor	Type		Hermetic	
	Motor output	kW	5.5	
	Crankcase heater	kW	0.062(240V)	
Refrigerant / Lubricant			R22/MS32(N-1)	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
External dimension		mm	1715(H)×990(W)×840(L)	
Protection devices	High pressure protection		2.94MPa	
	Compressor / Fan		Over current protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	
Refrigerant piping diameter	Liquid / Gas		ø12.7 flare /ø25.4 Flange	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 250 / 1 ~ 13	
Noise level		dB<A>	56	
Net weight		kg	219	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (10˚CDB ~ 43˚CDB with outdoor unit at lower position)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB ~ 15.5˚CWB

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

∗1 **Cooling** Indoor : 27˚CDB/19˚CWB Outdoor : 35˚CDB ∗2 **Cooling** Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB
Heating Indoor : 20˚CDB Outdoor : 7˚CDB/6˚CWB Pipe length : 5m Height difference : 0m
Pipe length : 7.5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

Model name			PUHY-250YMF-C	
			Cooling	Heating
Capacity		kW	∗1 28.0	31.5
		kcal/h	∗2 25,000	-
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	10.89	10.15
Current		A	18.3/17.4/16.8	17.1/16.2/15.6
Fan	Type × Quantity		Propeller fan × 1	
	Airflow rate	m^3/min	185	
	Motor output	kW	0.38	
Compressor	Type		Hermetic	
	Motor output	kW	7.5	
	Crankcase heater	kW	0.062(240V)	
Refrigerant / Lubricant			R22/MS32(N-1)	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
External dimension		mm	1715(H)×990(W)×840(L)	
Protection devices	High pressure protection		2.94MPa	
	Compressor / Fan		Over current protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	
Refrigerant piping diameter		Liquid / Gas	ø12.7 flare /ø28.58 Flange	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 250 / 1 ~ 16	
Noise level		dB<A>	57	
Net weight		kg	221	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (10˚CDB ~ 43˚CDB with outdoor unit at lower position)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB~15.5˚CWB

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

∗1 **Cooling** Indoor : 27˚CDB/19˚CWB Outdoor : 35˚CDB
Heating Indoor : 20˚CDB Outdoor : 7˚CDB/6˚CWB
Pipe length : 7.5m Height difference : 0m

∗2 **Cooling** Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB
Pipe length : 5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

2. Capacity tables

2-1. Correction by temperature

Cooling

• Standard Specifications

		PUHY-200YMF-C	PUHY-250YMF-C
Capacity	kW	22.4	28.0
Input	kW	8.64	10.89
Source	V	380/400/415	
Current	A	14.5/13.8/13.3	18.3/17.4/16.8

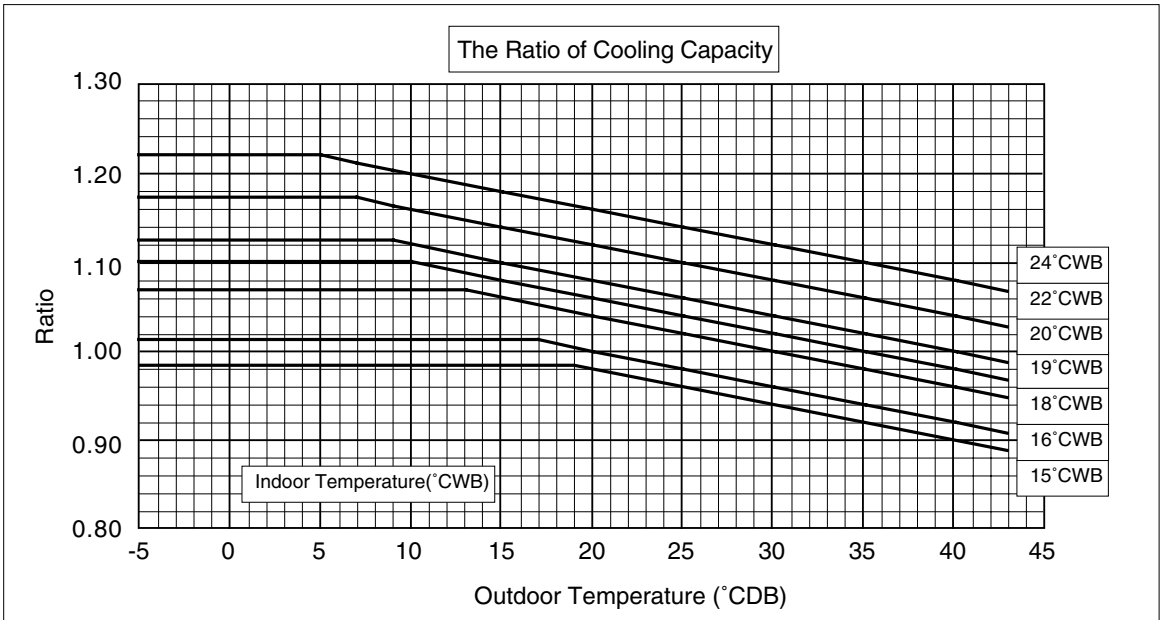
• Calculation

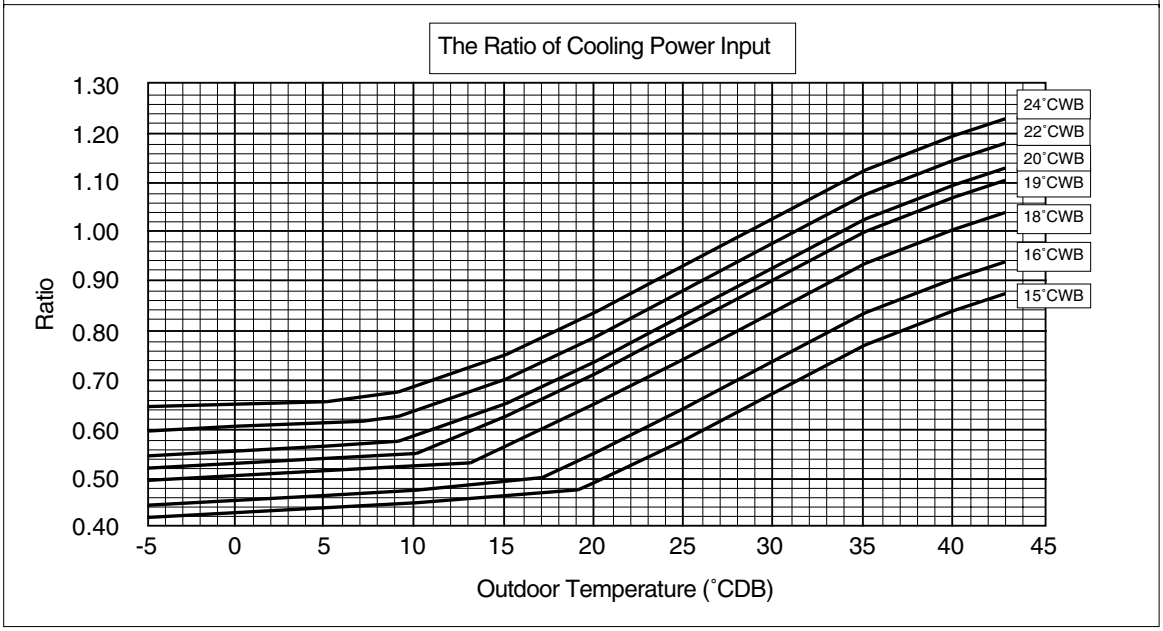
Capacity' = Capacity × Ratio

Input' = Input × Ratio

$$\text{Current}' = \frac{\text{Input}' \times 1000}{\sqrt{3} \times \text{Source} \times 0.90}$$

※ Capacity', Input', Current' } After correction





Heating

• Standard Specifications

		PUHY-200YMF-C	PUHY-250YMF-C
Capacity	kW	25.0	31.5
Input	kW	7.98	10.15
Source	V	380/400/415	
Current	A	13.4/12.7/12.3	17.1/16.2/15.6

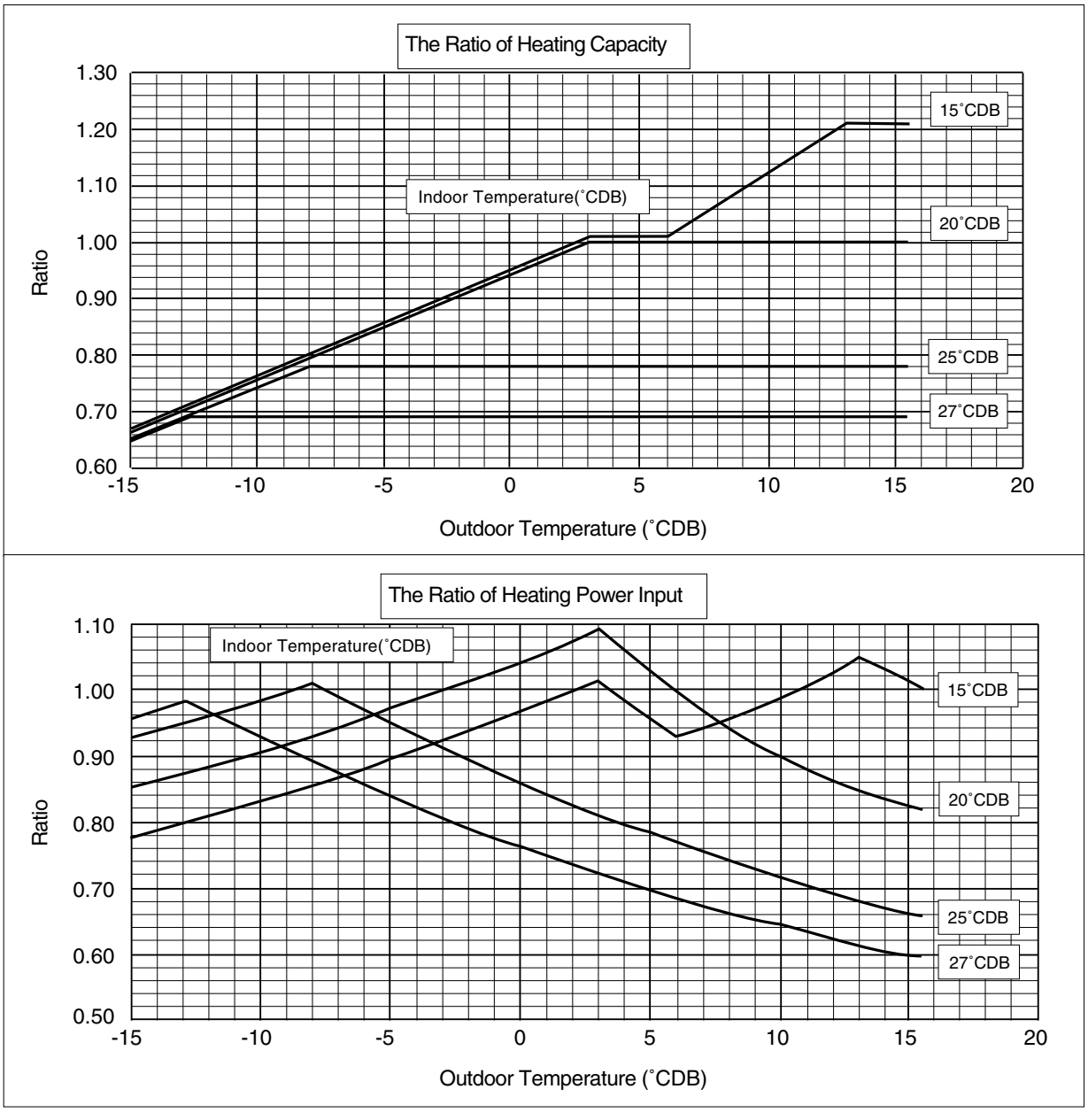
• Calculation

Capacity' = Capacity × Ratio

Input' = Input × Ratio

$$\text{Current'} = \frac{\text{Input'} \times 1000}{\sqrt{3} \times \text{Source} \times 0.91}$$

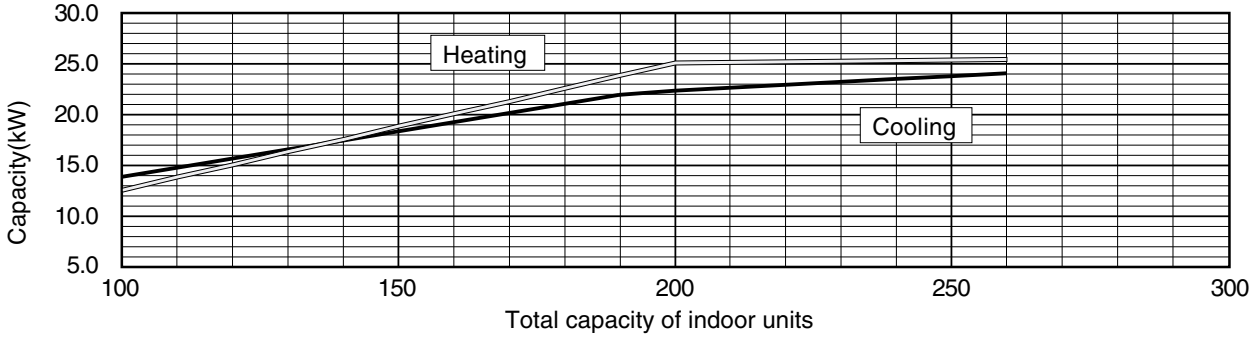
※Capacity'
Input'
Current'
} After correction



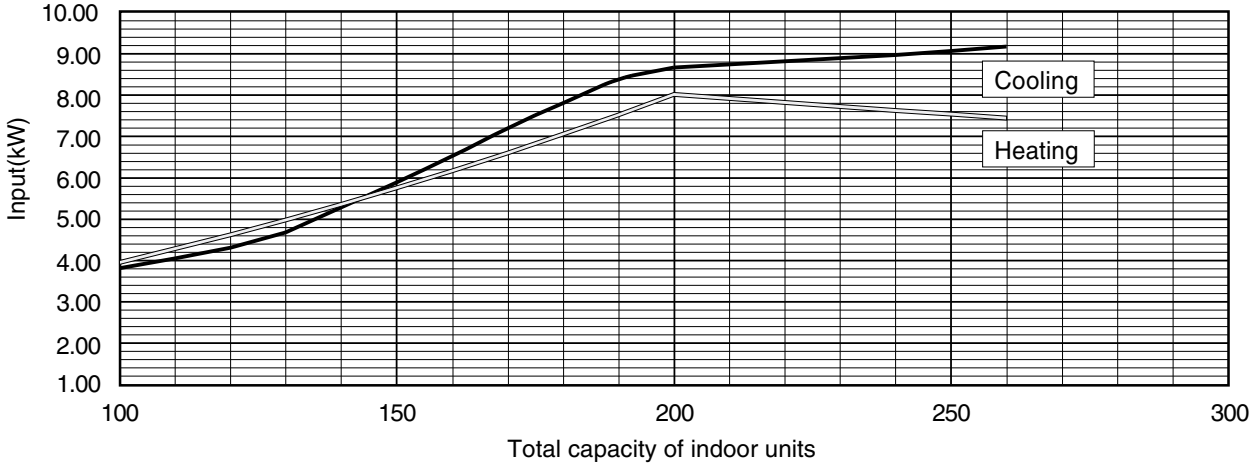
2-2. Correction by total indoor

PUHY-200YMF-C

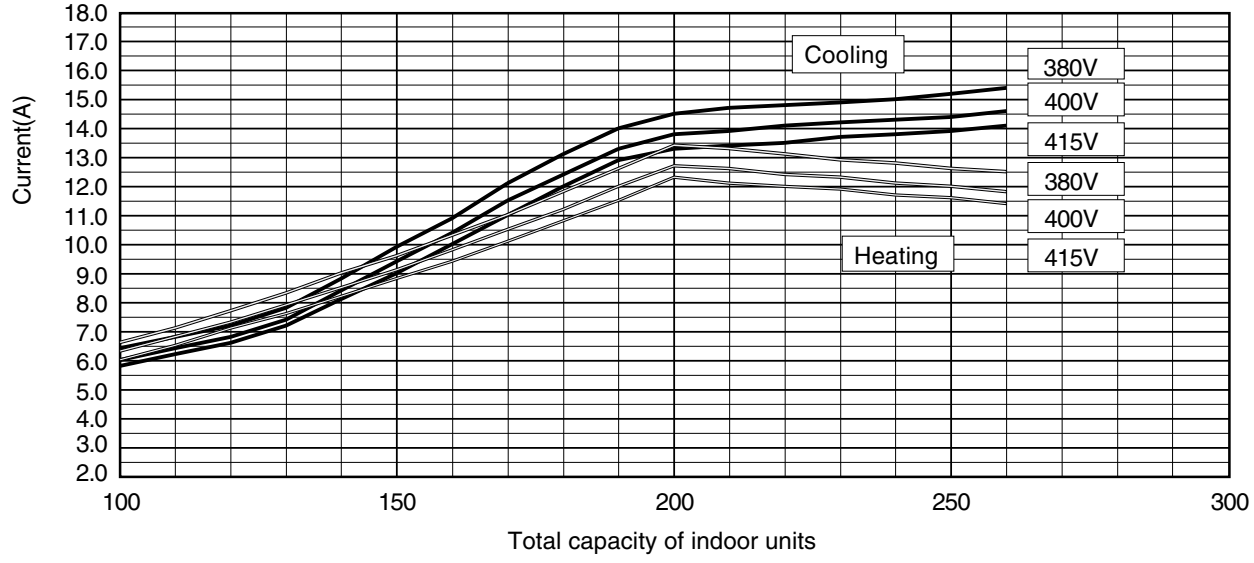
1) Capacity



2) Input

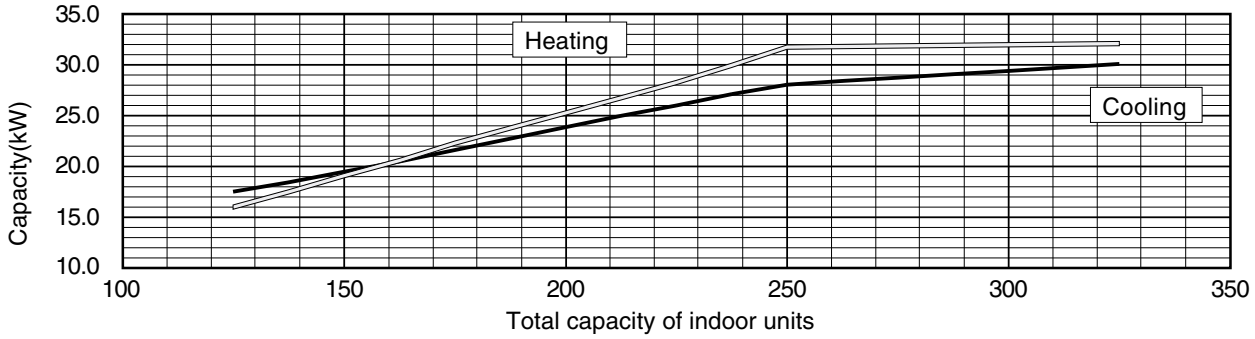


3) Current

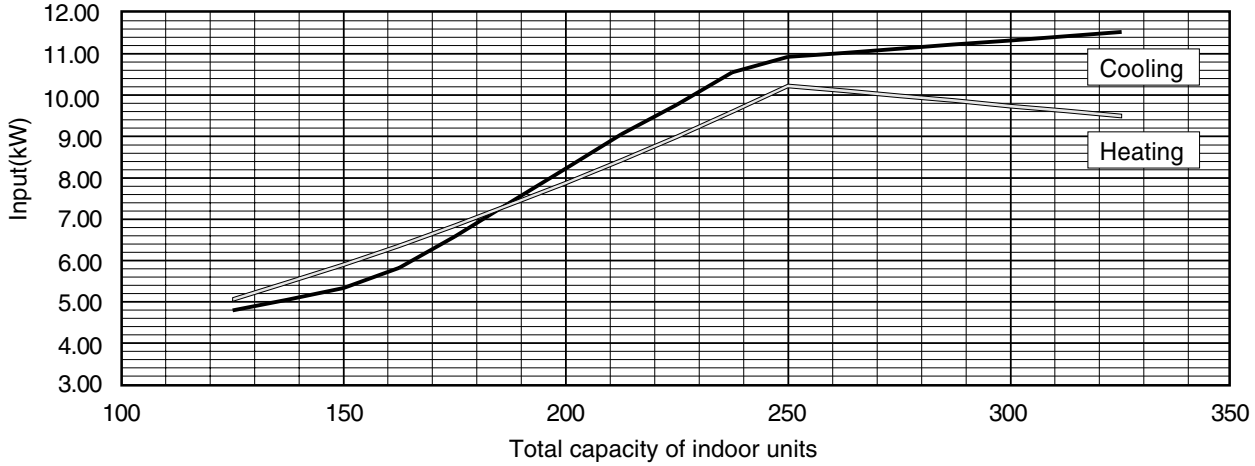


PUHY-250YMF-C

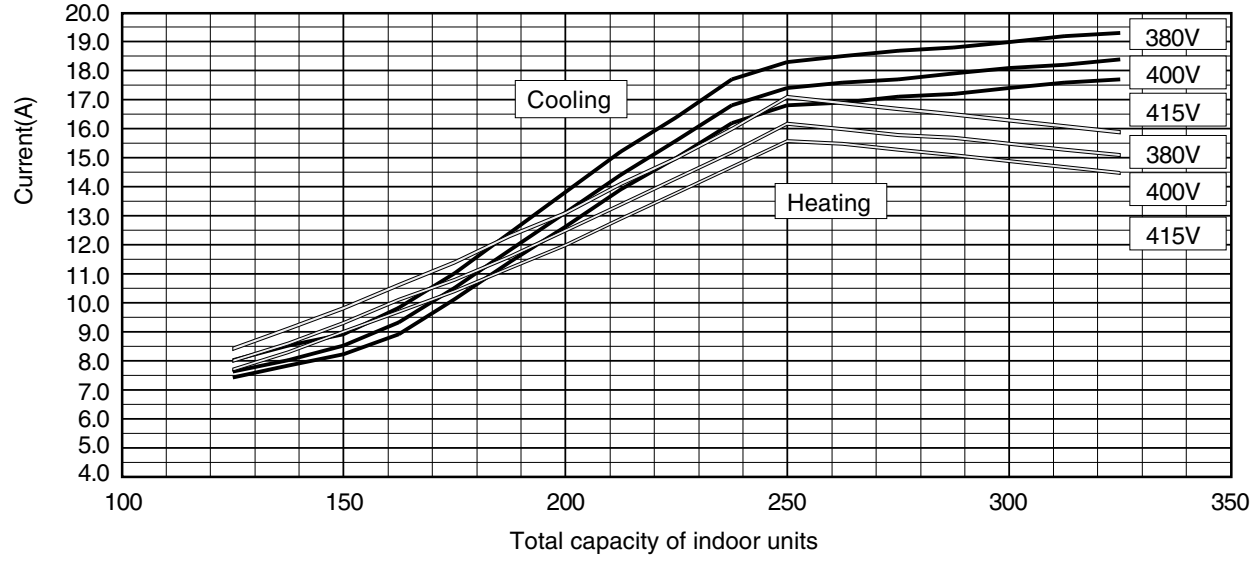
1) Capacity



2) Input



3) Current

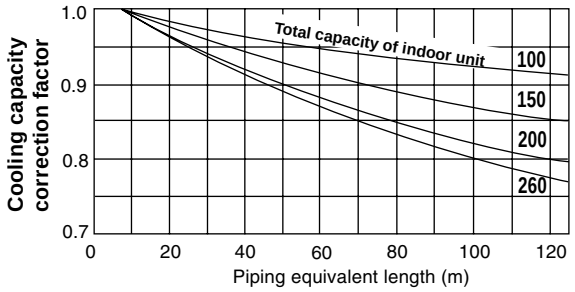


2-3 Correction by refrigerant piping length

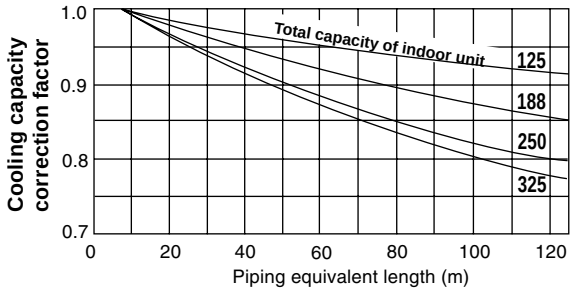
To obtain a decrease in cooling/heating capacity due to refrigerant piping extension, multiply by the capacity correction factor based on the refrigerant piping equivalent length in the table below.

• Cooling capacity correction

PUHY-200YMF-C

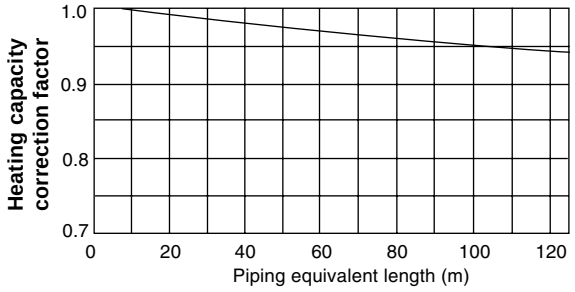


PUHY-250YMF-C

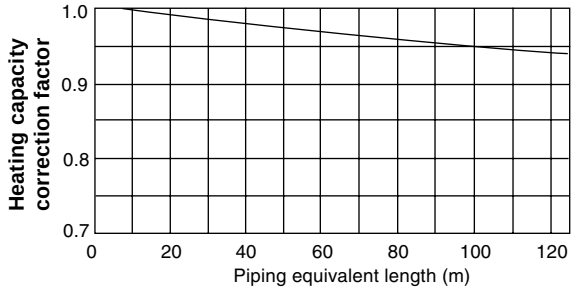


• Heating capacity correction

PUHY-200YMF-C



PUHY-250YMF-C



• How to obtain piping equivalent length

① **PUHY-200YMF-C**

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.47 × number of bent on the piping)m

② **PUHY-250YMF-C**

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 × number of bent on the piping)m

2-4 Correction at frosting and defrosting

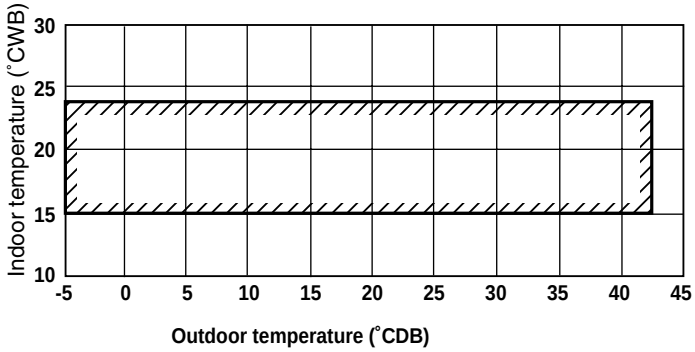
When a decrease in heating capacity due to frosted and defrosting operations is considered, the value multiplied by the correction factor in the table below represents the heating capacity.

Correction factor table

Outdoor inlet air temp (˚CWB)	6	4	2	0	-2	-4	-6	-8	-10
Correction factor	1.0	0.95	0.84	0.83	0.87	0.9	0.95	0.95	0.95

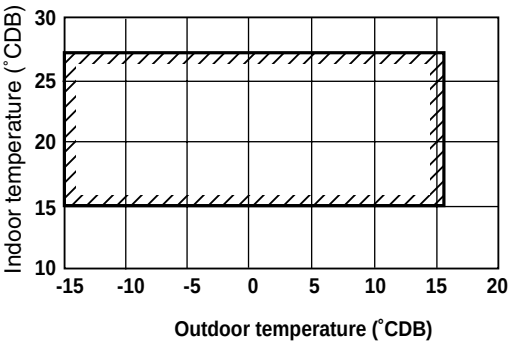
2-5 Operation limit

• Cooling



(Outdoor temperature :10˚CDB ~ 43˚CDB with outdoor unit at lower position in cooling mode.)

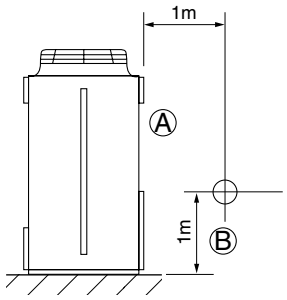
• Heating



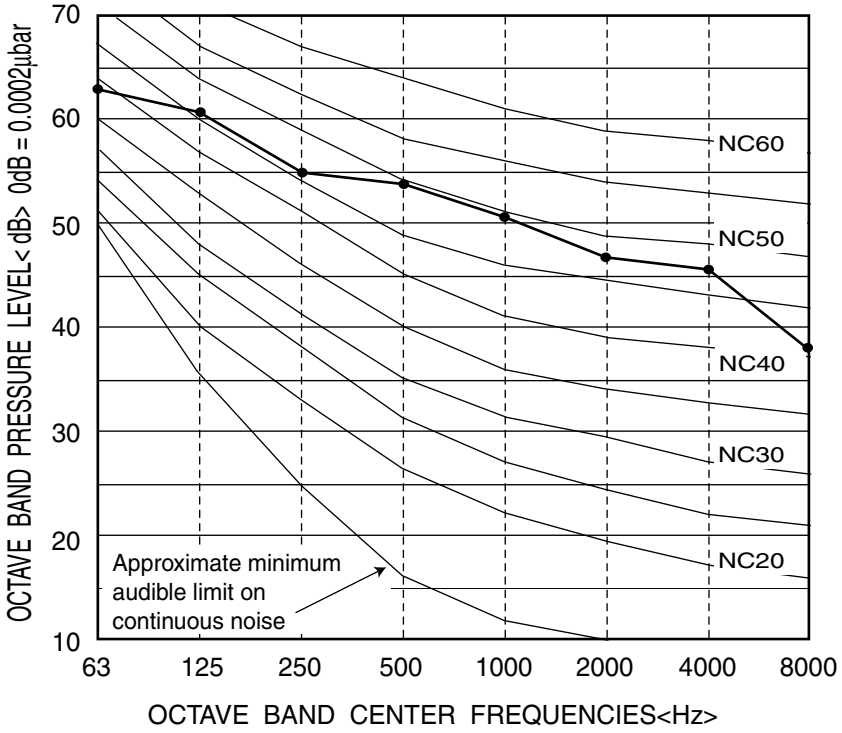
3. Sound levels

PUHY-200YMF-C

Measurement condition

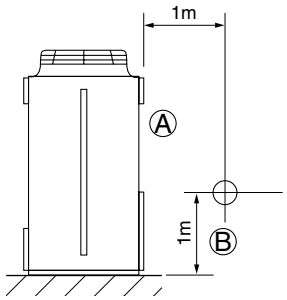


Sound pressure level in anechoic room
56 dB (A)

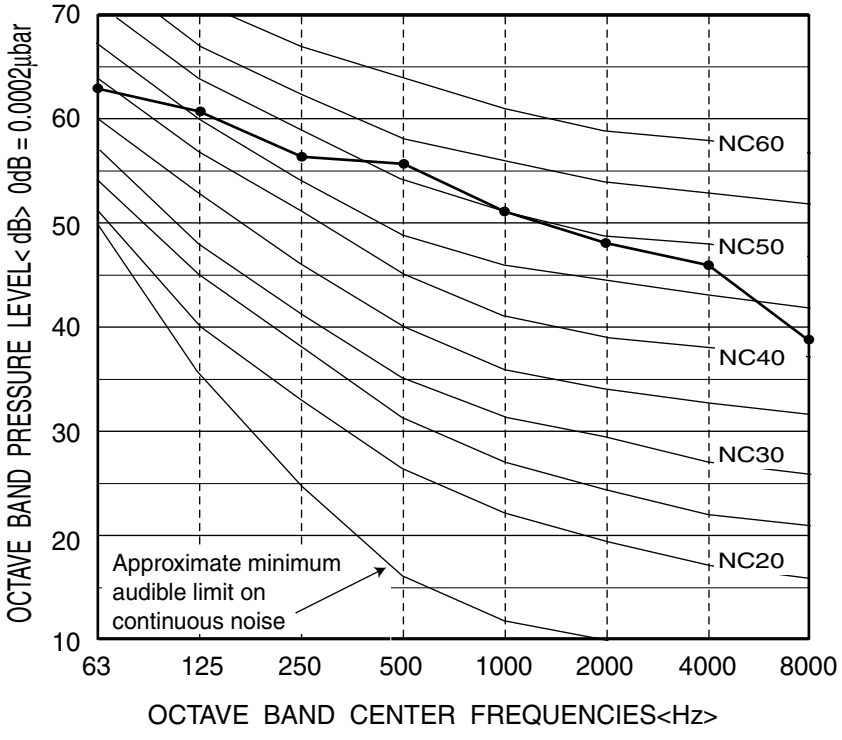


PUHY-250YMF-C

Measurement condition



Sound pressure level in anechoic room
57 dB (A)



4. External dimensions

PUHY-200,250YMF-C

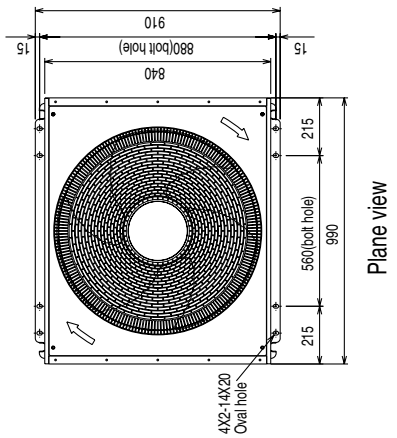
Unit : mm

< Accessory >
- Refrigerant (gas) conn. pipe ..... 1 pc. (The connecting pipe is fixed with the unit)
- Packing for conn. pipe ..... 1 pc. (Attached near the ball valve)
- Wiring mounting board
- Conduit mounting plate (Painted the same color as the unit body)

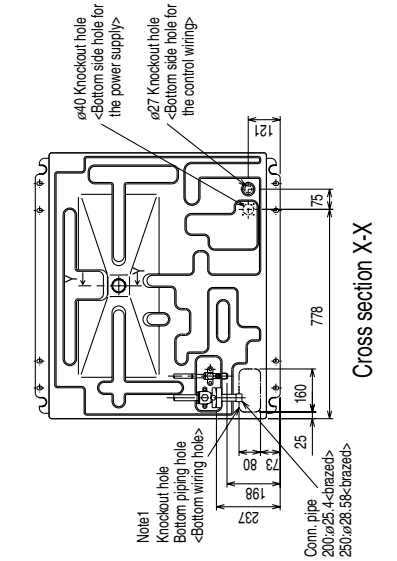
ø40 ..... 1 pc.
ø33 ..... 1 pc.
ø27 ..... 1 pc.

- Tapping screw 4 X 10 ..... 6 pcs.

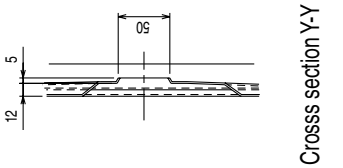
Note.1 Please leave a space under the outdoor unit for the piping When you connect the piping from the bottom. (Please be careful not to close the hole of the bottom plate by the basement)



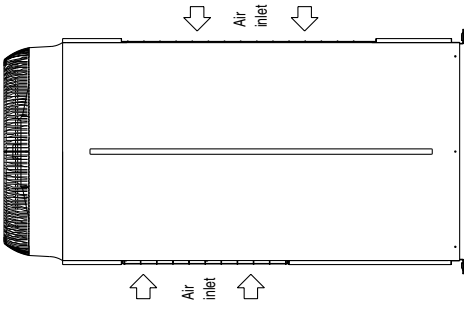
Plane view



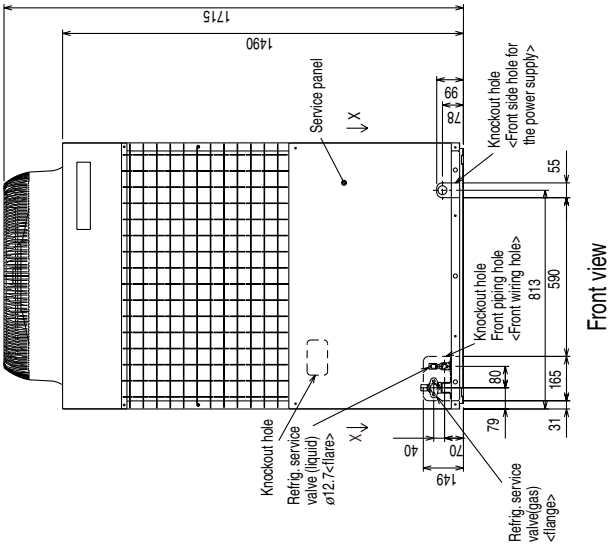
Cross section X-X



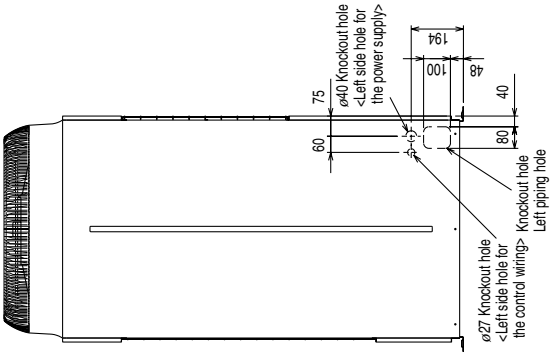
Crosss section Y-Y



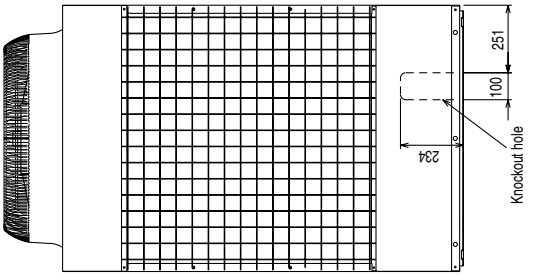
Right side view



Front view



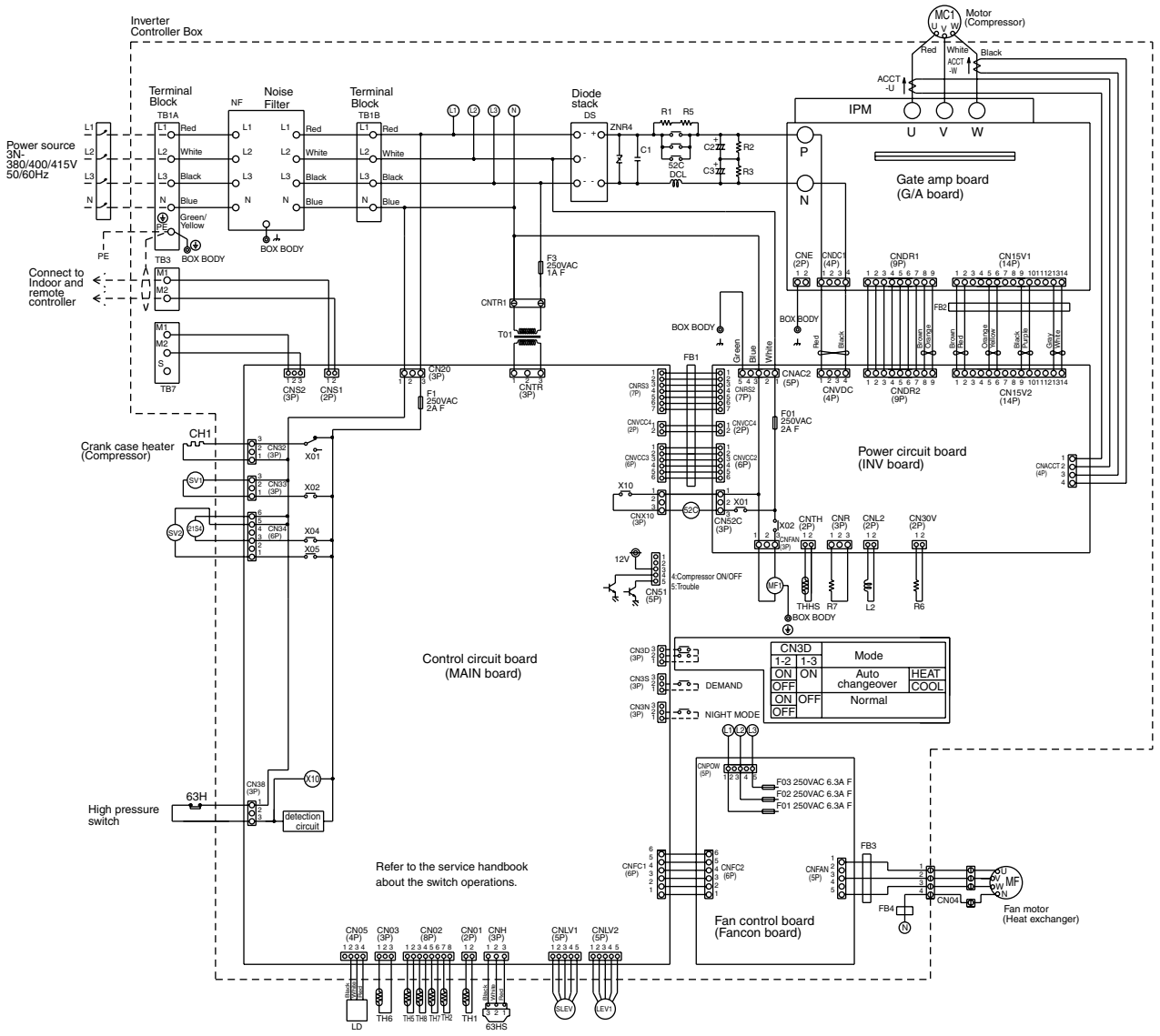
Left side view



Rear view

5. Electrical Wiring Diagram

PUHY-200, 250YMF-C

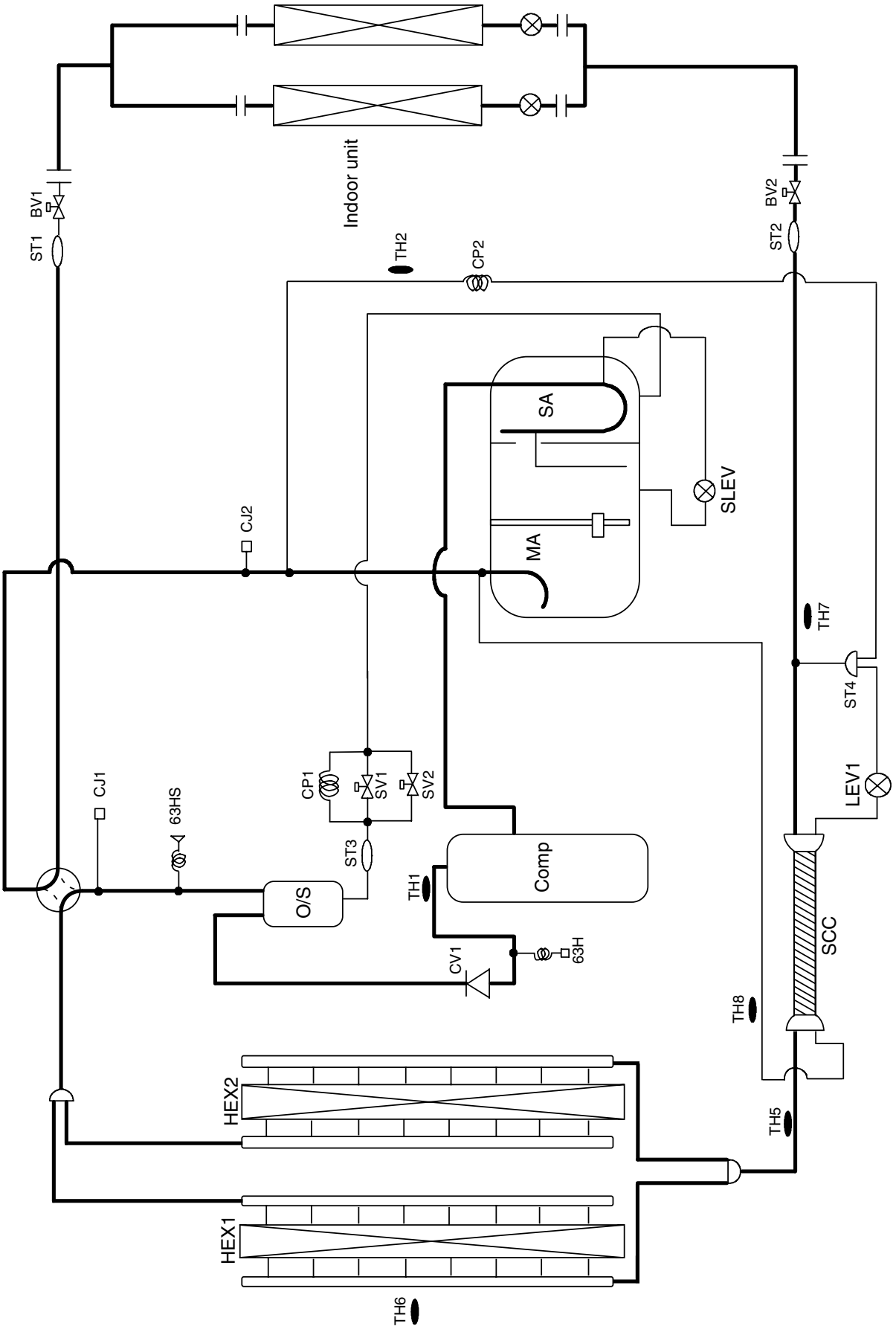


<SYMBOL EXPLANATION>

Symbol	Name	Symbol	Name	Symbol		Name	Symbol	Name
DCL	DC reactor (Power factor improvement)	SV1,SV2	Solenoid valve (Discharge–suction bypass)	TH2	Thermistor	Saturation evapo. temp. detect	LD	Accumlator liquid level detect
		LEV1	Electronic expansion valve (Sub-cool coil bypass)	TH5		Pipe temp. detect	X1~10	Aux. relay
ACCT-U,W	Current Sensor			TH6		OA temp. detect	FB1~4	Ferrite core
ZNR4	Varistor	SLEV	Electronic expansion valve(Oil return)	TH7		liquid outlet temp. detect at Sub–cool coil	⏚	Earth terminal
52C	Magnetic contactor (Inverter main circuit)	63HS	High pressure sensor					
		L2	Choke coil(Transmission)	TH8		bypass outlet temp. detect at Sub–cool coil		
MF1	Fan motor (Radiator panel)	IPM	Intelligent power module					
21S4	4–way valve	TH1	Thermistor Discharge pipe temp. detect	THHS		Radiator panel temp. detect		

6. Refrigerant circuit diagram and Thermal sensor

PUHY-200, 250YMF-C



PUHY-400YMF-B, PUHY-500YMF-B

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And Thermal Sensor

1. Specifications

Model name			PUHY-400YMF-B	
			Cooling	Heating
Capacity		kcal/h	40,000	45,000
		kW	46.5	52.3
		BTU/h	158,800	178,600
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	16.9	15.6
Current		A	28.2/26.8/25.8	26.0/24.7/23.8
Fan	Type× Quantity		Propeller fan ×2	
	Airflow rate	m^3/min	370	
	Motor output	kW	0.35 × 2	
Compressor	Type		Hermetic	
	Motor output	kW	7.5 + 4.5	
	Crankcase heater	kW	0.045 + 0.045	
Refrigerant / Lubricant			R22/MS32(N-1)	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
External dimension		mm	1715(H)× 1990(W) × 840(L)	
Protection devices	High pressure protection		30kg/cm^2G(2.94MPa)	
	Compressor / Fan		Overcurrent protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	
Refrigerant piping diameter	Liquid / Gas		ø 15.88 flare / ø 34.93 Flange	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 25 ~ 250 / 1 ~ 20	
Noise level		dB<A>	60 / 61	
Net weight		kg	432	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (10˚CDB ~43˚CDB with outdoor unit at lower position, or with indoor unit 25 type only is working.)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-12˚CWB ~ 15.5˚CWB (-12˚CWB~10˚CWB with indoor unit 25 type only is working)

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

Cooling Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB

Heating Indoor : 21˚CDB Outdoor : 7˚CDB/6˚CWB

Pipe length : 5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

Model name			PUHY-500YMF-B	
			Cooling	Heating
Capacity		kcal/h	50,000	56,000
		kW	58.2	65.1
		BTU/h	198,500	222,300
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	20.75	19.3
Current		A	34.2/32.5/31.3	32.2/30.6/29.5
Fan	Type× Quantity		Propeller fan× 2	
	Airflow rate	m^3/min	370	
	Motor output	kW	0.35 × 2	
Compressor	Type		Hermetic	
	Motor output	kW	7.5 + 7.5	
	Crankcase heater	kW	0.045 + 0.056	
Refrigerant / Lubricant			R22/MS32(N-1)	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
External dimension		mm	1715(H)× 1990(W) × 840(L)	
Protection devices	High pressure protection		30kg/cm^2G(2.94MPa)	
	Compressor / Fan		Overcurrent protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	
Refrigerant piping diameter		Liquid / Gas	ø 15.88 flare / ø 34.93 Flange	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 25 ~ 250 / 1 ~ 20	
Noise level		dB<A>	60 / 61	
Net weight		kg	472	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (10˚CDB ~43˚CDB with outdoor unit at lower position, or with indoor unit 25 type only is working.)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-12˚CWB ~ 15.5˚CWB (-12˚CWB~10˚CWB with indoor unit 25 type only is working)

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

Cooling Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB

Heating Indoor : 21˚CDB Outdoor : 7˚CDB/6˚CWB

Pipe length : 5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

2. Capacity Tables

2-1. Correction by temperature

Cooling

•Standard Specifications

		PUHY-400YMF-B	PUHY-500YMF-B
Capacity	kcal/h	40,000	50,000
	kW	46.5	58.2
	BTU/h	158,800	198,500
Input	kW	16.9	20.75
Source	V	380/400/415	
Current	A	28.2/26.8/25.8	34.2/32.5/31.3

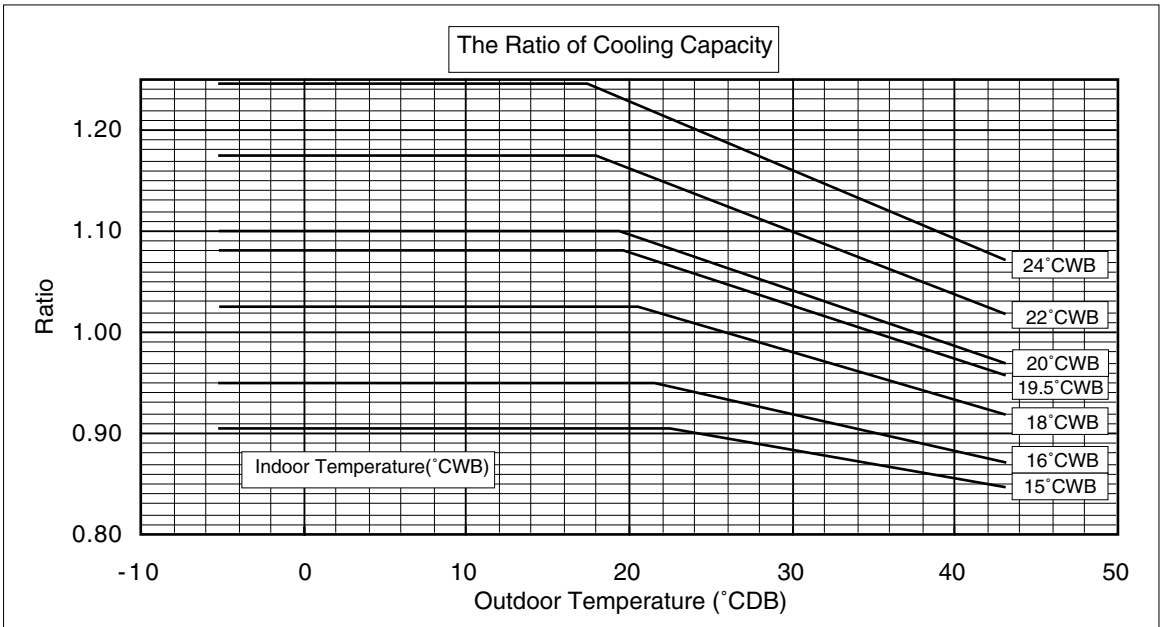
•Calculation

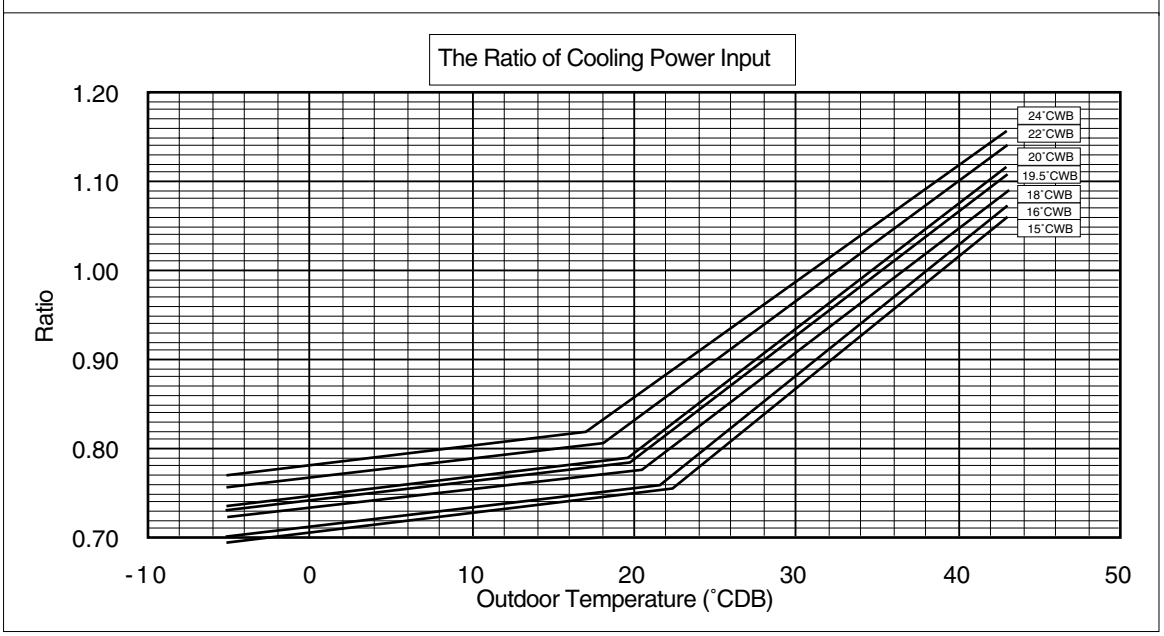
Capacity' = Capacity × Ratio

Input' = Input × Ratio

$$\text{Current}' = \frac{\text{Input}' \times 1000}{\sqrt{3} \times \text{Source} \times 0.91 (:\text{PUHY-400YMF-B}) \times 0.92 (:\text{PUHY-500YMF-B})}$$

❋Capacity'
Input'
Current'
} After correction





Heating

•Standard Specifications

		PUHY-400YMF-B	PUHY-500YMF-B
Capacity	kcal/h	45,000	56,000
	kW	52.3	65.1
	BTU/h	178,600	222,300
Input	kW	15.6	19.3
Source	V	380/400/415	
Current	A	26.0/24.7/23.8	32.2/30.6/29.5

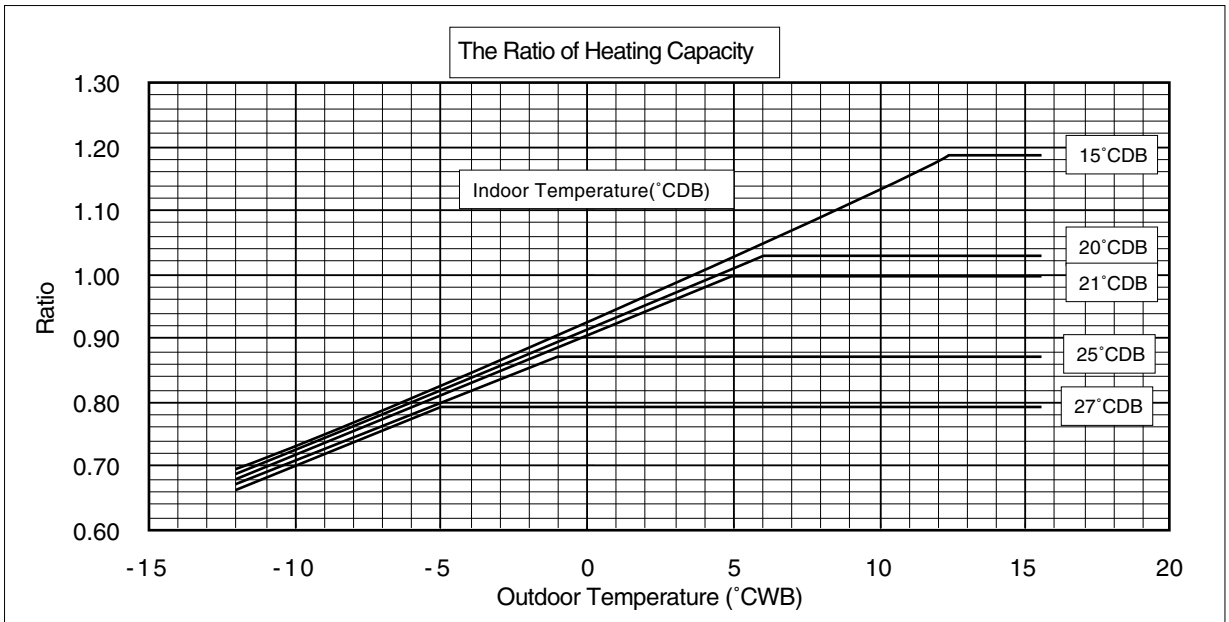
•Calculation

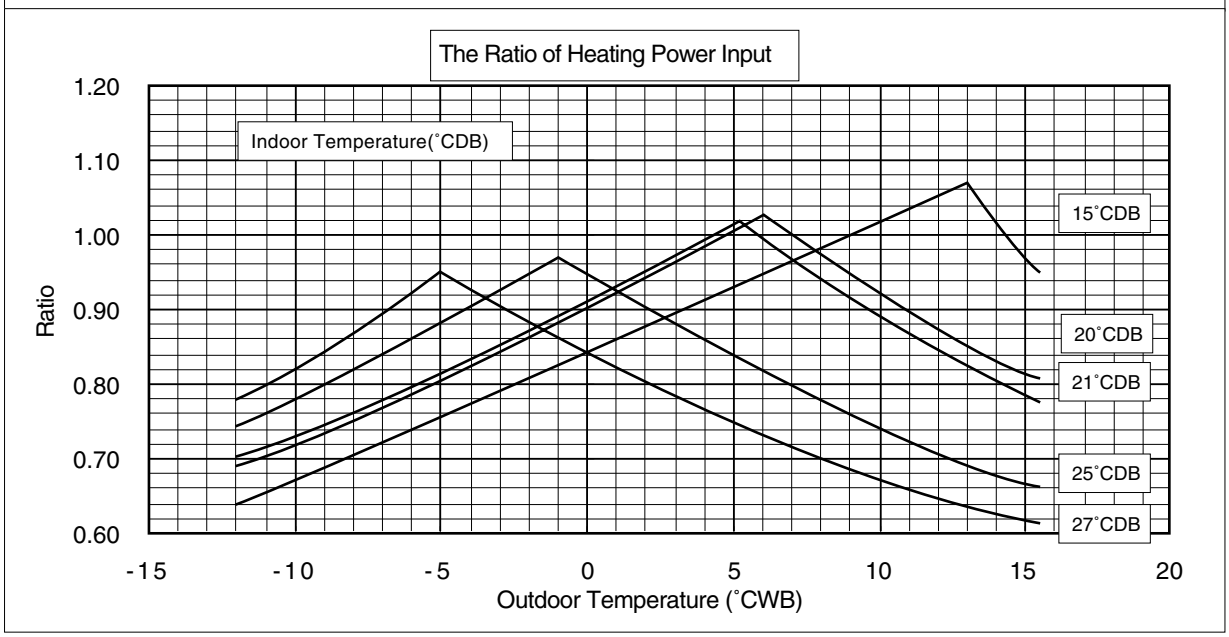
Capacity' = Capacity × Ratio

Input' = Input × Ratio

$$\text{Current'} = \frac{\text{Input'} \times 1000}{\sqrt{3} \times \text{Source} \times 0.91}$$ (:PUHY-400·500YMF-B)

※Capacity'
Input'
Current'
} After correction

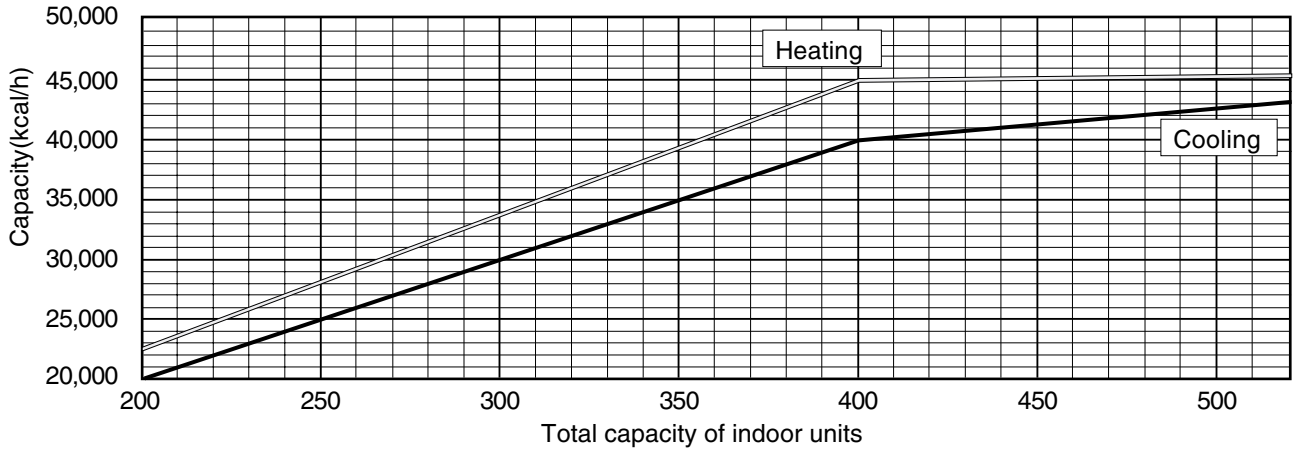




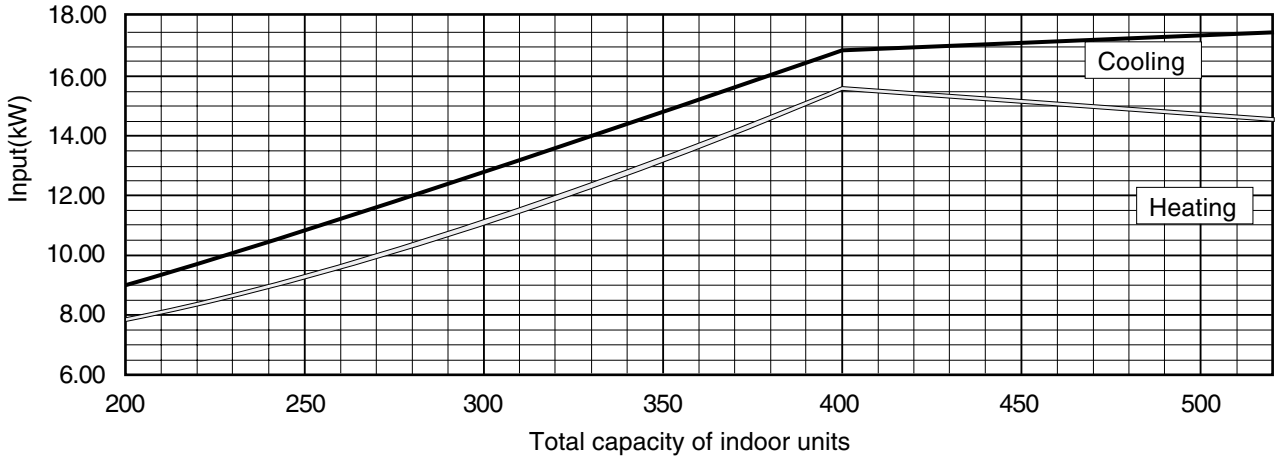
2-2. Correction by total indoor

PUHY-400YMF-B

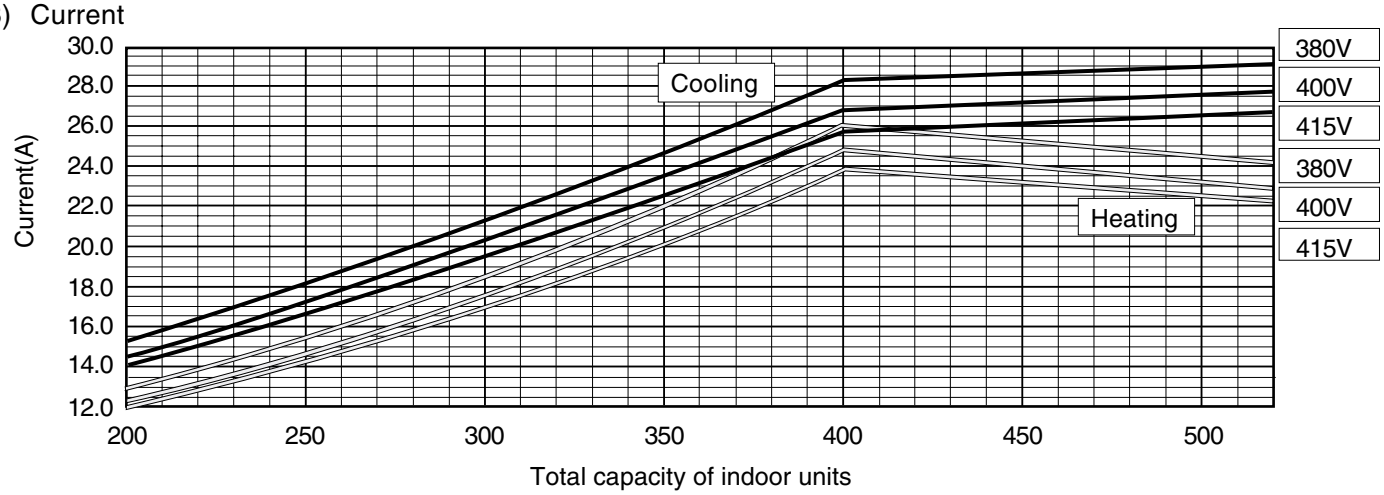
1) Capacity



2) Input

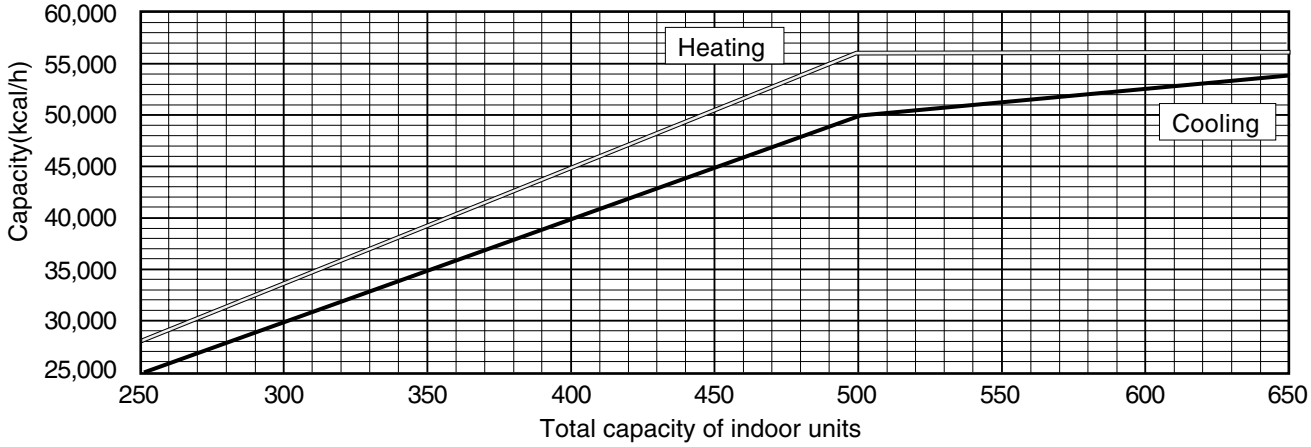


3) Current

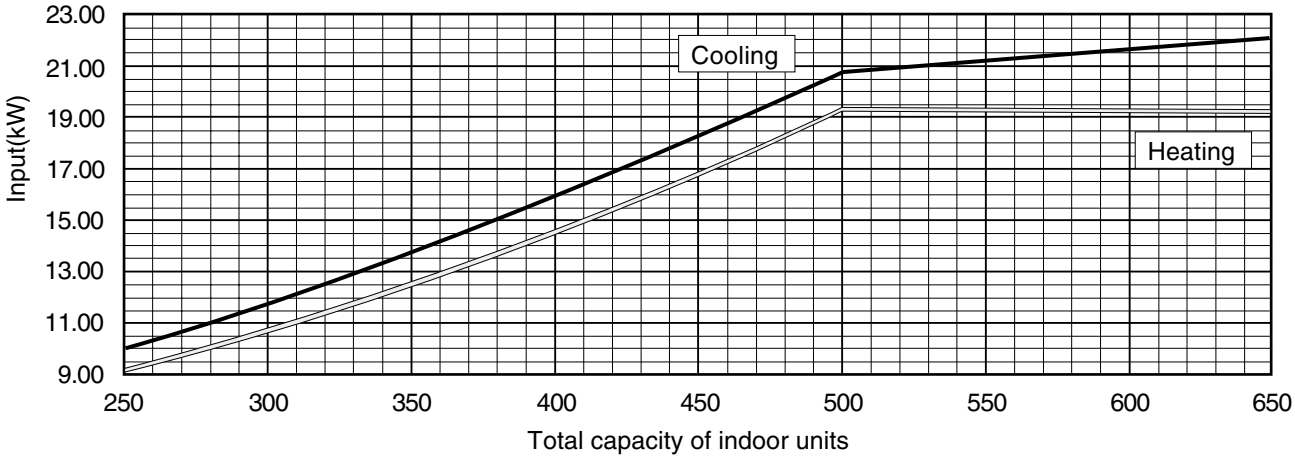


PUHY-500YMF-B

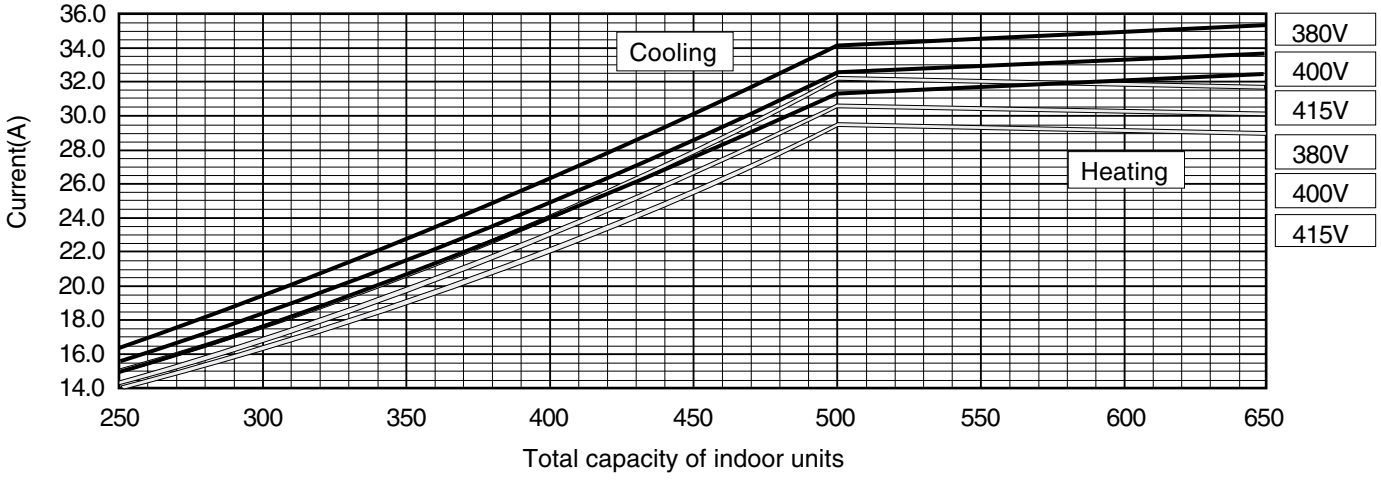
1) Capacity



2) Input



3) Current

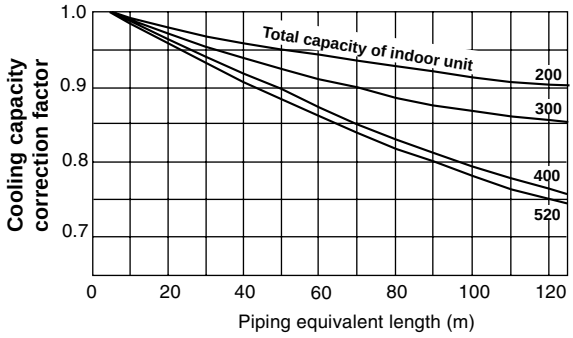


2-3 Correction by refrigerant piping length

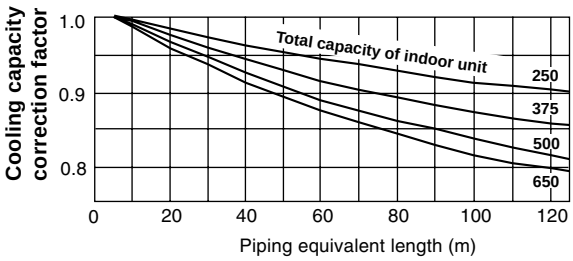
To obtain a decrease in cooling/heating capacity due to refrigerant piping extension, multiply by the capacity correction factor based on the refrigerant piping equivalent length in the table below.

• Cooling capacity correction

PUHY-400YMF-B

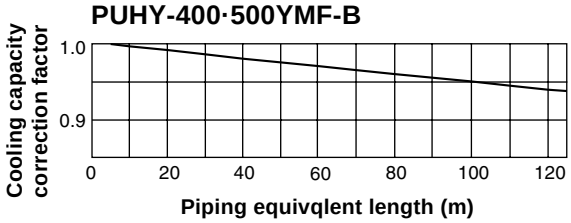


PUHY-500YMF-B



• Heating capacity correction

PUHY-400·500YMF-B



• How to obtain piping equivalent length

① **PUHY-400YMF-B**

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.70 × number of bent on the piping)m

② **PUHY-500YMF-B**

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.80 × number of bent on the piping)m

2-4 Correction at frosting and defrosting

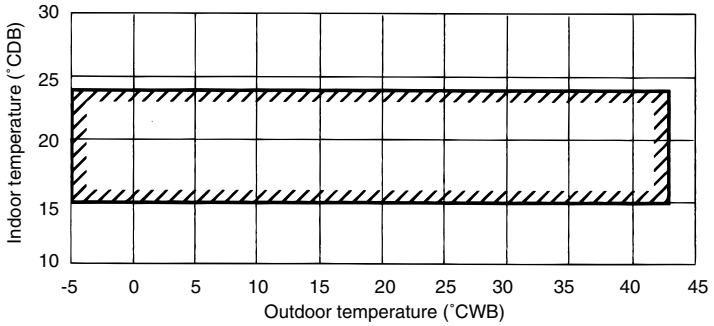
When a decrease in heating capacity due to frosted and defrosting operations is considered, the value multiplied by the correction factor in the table below represents the heating capacity.

Correction factor table

Outdoor inlet air temp (˚CWB)	6	4	2	0	-2	-4	-6	-8	-10
Correction factor	1.0	0.98	0.89	0.89	0.90	0.92	0.95	0.95	0.95

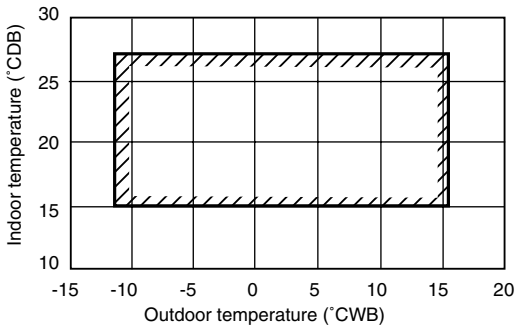
2-5 Operation limit

• Cooling



When the indoor unit is located above the outdoor unit for 4m or more, or indoor unit 25type only is working, the outdoor unit inlet air temperature becomes 10~43˚CDB.

• Heating

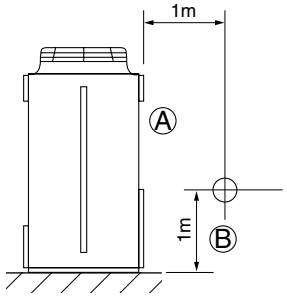


When the indoor unit 25type only is working, the outdoor unit inlet air temperature becomes -12~10˚CWB.

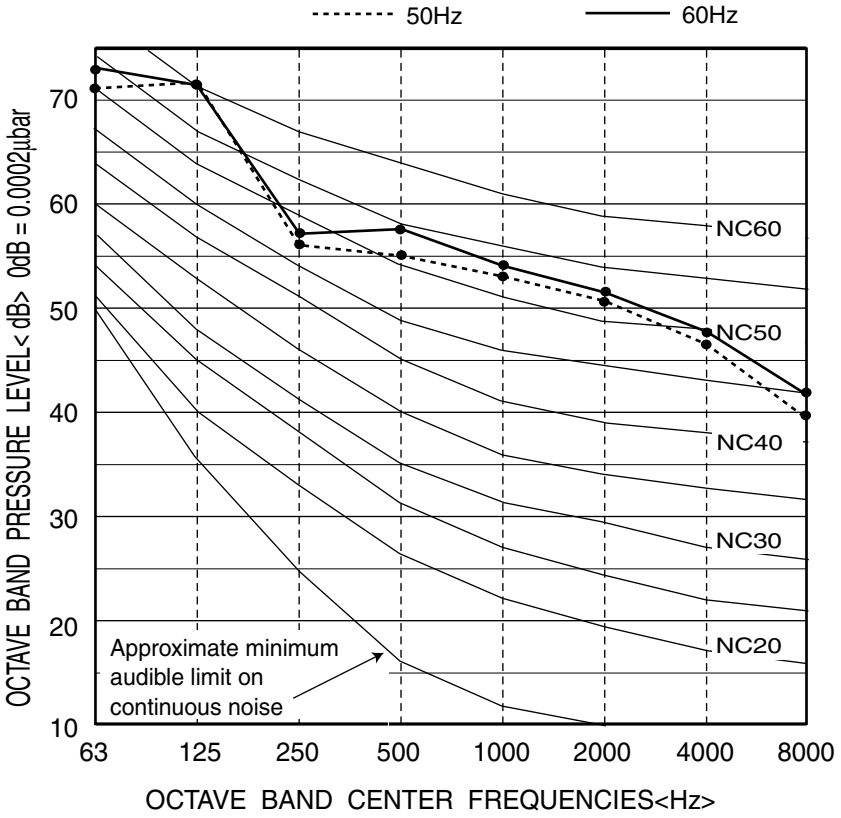
3. Sound Levels

PUHY-400YMF-B

Measurement condition

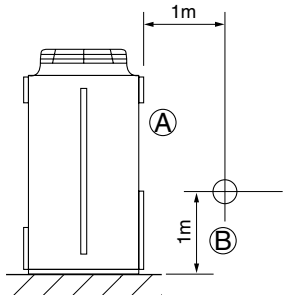


Sound pressure level in anechoic room
60 / 61 dB (A)

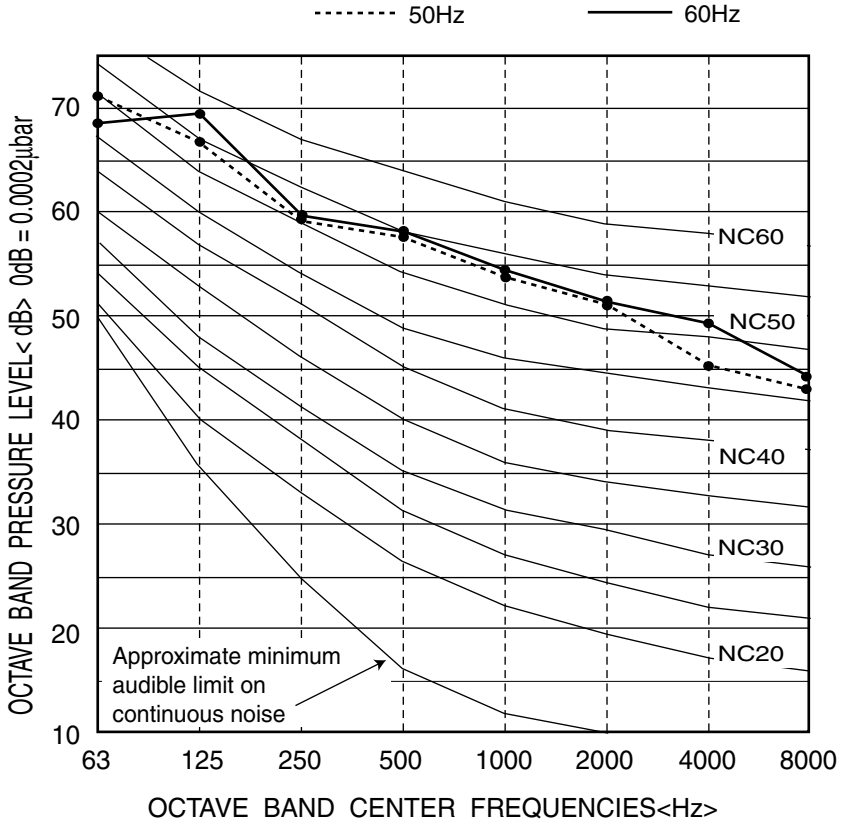


PUHY-500YMF-B

Measurement condition



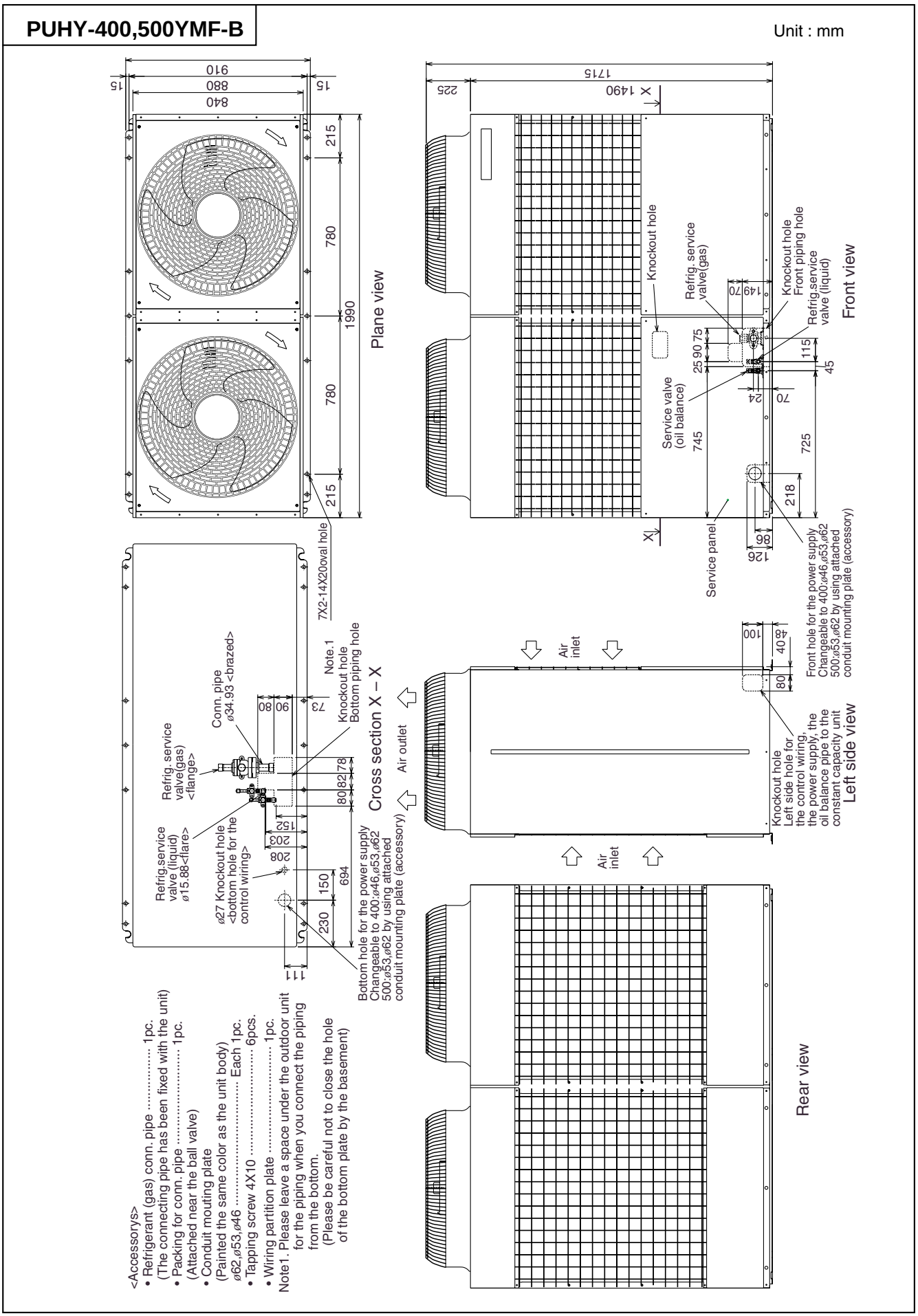
Sound pressure level in anechoic room
60 / 61 dB (A)



4. External Dimensions

PUHY-400,500YMF-B

Unit : mm

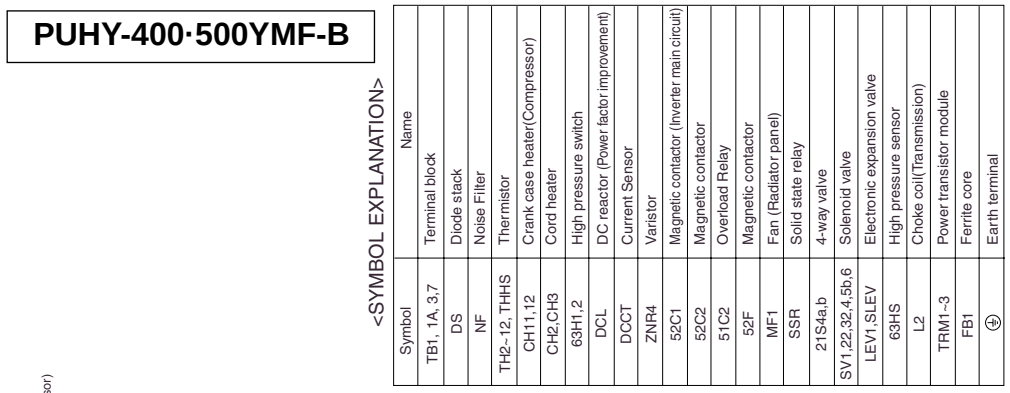


<Accessorys>
- Refrigerant (gas) conn. pipe ..... 1pc. (The connecting pipe has been fixed with the unit)
- Packing for conn. pipe ..... 1pc. (Attached near the ball valve)
- Conduit mouting plate (Painted the same color as the unit body) ø62,ø53,ø46 ..... Each 1pc.
- Tapping screw 4X10 ..... 6pcs.
- Wiring partition plate ..... 1pc.

Note1. Please leave a space under the outdoor unit for the piping when you connect the piping from the bottom. (Please be careful not to close the hole of the bottom plate by the basement)

5. Electrical Wiring Diagram

PUHY-400·500YMF-B

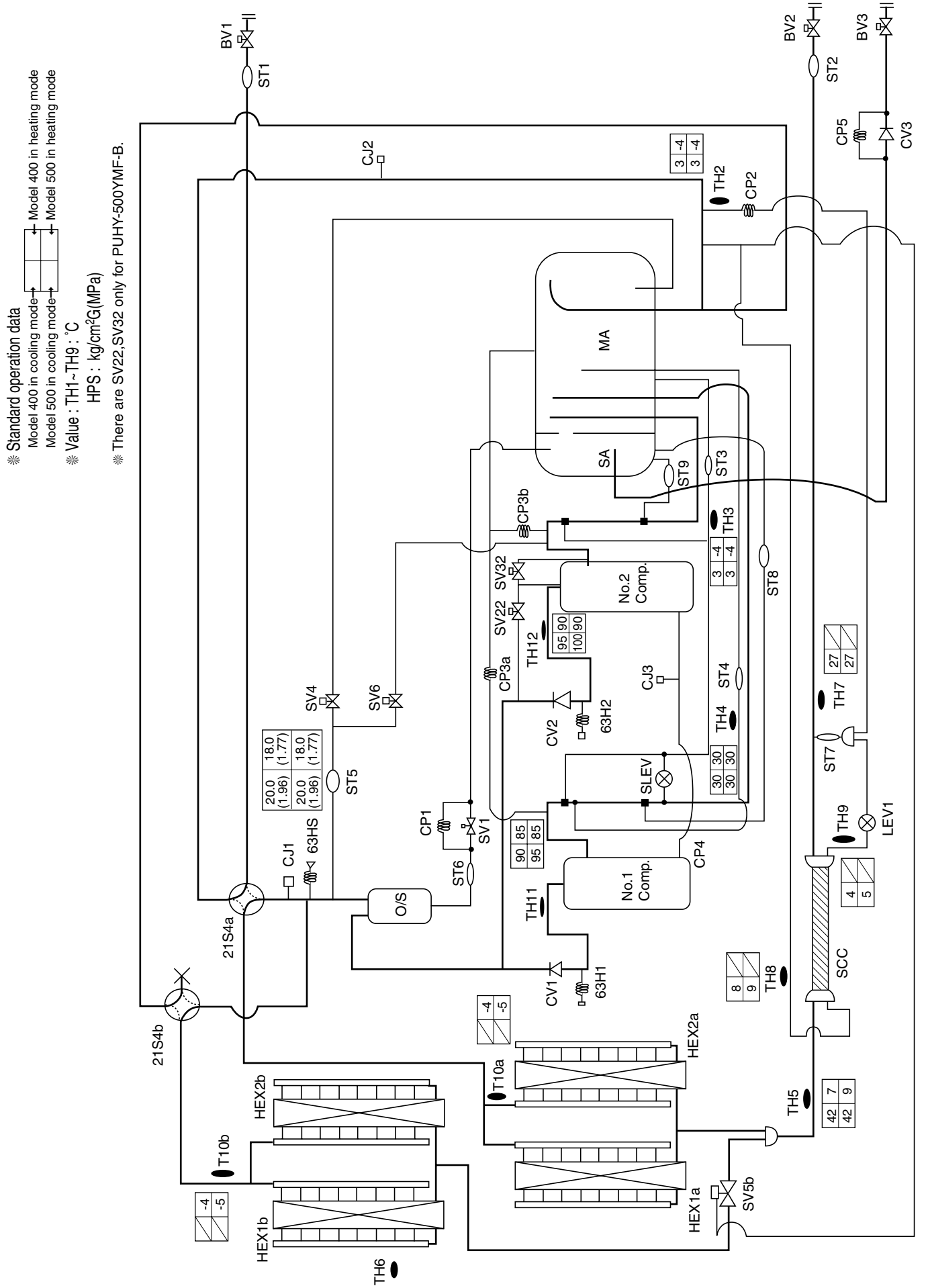

<SYMBOL EXPLANATION>
Symbol | Name
TB1, 1A, 3,7 | Terminal block
DS | Diode stack
NF | Noise Filter
TH2~12, THHS | Thermistor
CH11,12 | Crank case heater(Compressor)
CH2,CH3 | Cord heater
63H1,2 | High pressure switch
DCL | DC reactor (Power factor improvement)
DCCT | Current Sensor
ZNR4 | Varistor
52C1 | Magnetic contactor (Inverter main circuit)
52C2 | Magnetic contactor
51C2 | Overload Relay
52F | Magnetic contactor
MF1 | Fan (Radiator panel)
SSR | Solid state relay
21S4a,b | 4-way valve
SV1,22,32,4,5b,6 | Solenoid valve
LEV1,SLEV | Electronic expansion valve
63HS | High pressure sensor
L2 | Choke coil(Transmission)
TRM1~3 | Power transistor module
FB1 | Ferrite core
⏚ | Earth terminal

<CAUTION>
·When checking for the inside control box, be sure to turn the power source off, and confirm that the voltage at the both ends of main capacitor(C2,C3) is being sufficientry low by opening MAIN board mounting plate after leaving 10minutes or more.
·Please read the INSTALLATION MANUAL carefully.

<WIRING DIAGRAM>
Inverter Controller Box

There are not "*1" on "PUHY-400YMF-B".

6. Refrigerant Circuit Diagram And Thermal Sensor



PUHY-600YSMF-B, PUHY-650YSMF-B
PUHY-700YSMF-B, PUHY-750YSMF-B

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6. Refrigerant Circuit Diagram And Thermal Sensor 167

1. Specifications

This unit consists of a conbination of PUHY-400YMF-B and PUHN-200YMF-B.

Model name			PUHY-600YSMF-B	
			Cooling	Heating
Capacity		kcal/h	60,000	67,400
		kW	69.8	78.3
		BTU/h	238,200	267,500
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	24.85	22.70
Current		A	41.4/39.4/37.9	37.9/36.0/34.7
Refrigerant / Lubricant			R22/MS32(N-1)	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 250 / 2 ~ 32	
Noise level		dB<A> (50/60Hz)	61.5 / 62	
Refrigerant piping diameter (main)	Liquid / Gas		ø 19.05 / ø 34.93	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (10˚CDB~43˚CDB with outdoor unit at lower position, or with indoor unit 20 or 25 type only is working)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB ~ 15.5˚CWB (-12˚CWB~10˚CWB with indoor unit 20 or 25 type only is working)

Model name			PUHY-400YMF-B	PUHN-200YMF-B
Fan	Type× Quantity		Propeller fan ×2	Propeller fan ×1
	Airflow rate	m^3/min	370	185
	Motor output	kW	0.35 × 2	0.35 × 1
Compressor	Type		Hermetic	
	Motor output	kW	7.5 + 4.5	5.5
	Crankcase heater	kW	0.045 + 0.045	0.056
External dimension		mm	1715(H)× 1990(W)× 840(L)	1715(H)× 990(W)× 840(L)
Protection devices	High pressure protection		30kg/cm^2G(2.94MPa)	
	Compressor / Fan		Overcurrent protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	—
Refrigerant piping diameter	Liquid / Gas		ø 15.88 flare / ø 34.93 Flange	ø 12.7 flare / ø 28.58 Flange
Net weight		kg	432	240

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

Cooling Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB
Heating Indoor : 21˚CDB Outdoor : 7˚CDB/6˚CWB
Pipe length : 10m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

This unit consists of a conbination of PUHY-400YMF-B and PUHN-250YMF-B.

Model name			PUHY-650YSMF-B	
			Cooling	Heating
Capacity		kcal/h	65,000	73,000
		kW	75.6	84.9
		BTU/h	258,100	289,800
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	26.75	24.70
Current		A	44.6/42.4/40.8	41.2/39.1/37.7
Refrigerant / Lubricant			R22/MS32(N-1)	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 250 / 2 ~ 32	
Noise level		dB<A> (50/60Hz)	62.0 / 62.5	
Refrigerant piping diameter (main)	Liquid / Gas		ø 19.05 / ø 41.28	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (10˚CDB~43˚CDB with outdoor unit at lower position, or with indoor unit 20 or 25 type only is working)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB ~ 15.5˚CWB (-12˚CWB~10˚CWB with indoor unit 20 or 25 type only is working)

Model name			PUHY-400YMF-B	PUHN-250YMF-B
Fan	Type× Quantity		Propeller fan ×2	Propeller fan ×1
	Airflow rate	m^3/min	370	185
	Motor output	kW	0.35 × 2	0.35 × 1
Compressor	Type		Hermetic	
	Motor output	kW	7.5 + 4.5	7.5
	Crankcase heater	kW	0.045 + 0.045	0.056
External dimension		mm	1715(H)× 1990(W)× 840(L)	1715(H)× 990(W)× 840(L)
Protection devices	High pressure protection		30kg/cm^2G(2.94MPa)	
	Compressor / Fan		Overcurrent protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	—
Refrigerant piping diameter	Liquid / Gas		ø 15.88 flare / ø 34.93 Flange	ø 12.7 flare / ø 28.58 Flange
Net weight		kg	432	255

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

Cooling Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB
Heating Indoor : 21˚CDB Outdoor : 7˚CDB/6˚CWB
Pipe length : 10m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

This unit consists of a conbination of PUHY-500YMF-B and PUHN-200YMF-B.

Model name			PUHY-700YSMF-B	
			Cooling	Heating
Capacity		kcal/h	70,000	78,400
		kW	81.5	91.1
		BTU/h	277,900	311,200
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	29.25	26.60
Current		A	48.3/45.8/44.2	44.4/42.1/40.6
Refrigerant / Lubricant			R22/MS32(N-1)	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 250 / 2 ~ 32	
Noise level		dB<A> (50/60Hz)	61.5 / 62.0	
Refrigerant piping diameter (main)	Liquid / Gas		ø 19.05 / ø 41.28	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (10˚CDB~43˚CDB with outdoor unit at lower position, or with indoor unit 20 or 25 type only is working)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB ~ 15.5˚CWB (-12˚CWB~10˚CWB with indoor unit 20 or 25 type only is working)

Model name			PUHY-500YMF-B	PUHN-200YMF-B
Fan	Type× Quantity		Propeller fan ×2	Propeller fan ×1
	Airflow rate	m^3/min	370	185
	Motor output	kW	0.35 × 2	0.35 × 1
Compressor	Type		Hermetic	
	Motor output	kW	7.5 + 7.5	5.5
	Crankcase heater	kW	0.045 + 0.056	0.056
External dimension		mm	1715(H)× 1990(W)× 840(L)	1715(H)× 990(W)× 840(L)
Protection devices	High pressure protection		30kg/cm^2G(2.94MPa)	
	Compressor / Fan		Overcurrent protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	—
Refrigerant piping diameter	Liquid / Gas		ø 15.88 flare / ø 34.93 Flange	ø 12.7 flare / ø 25.4 Flange
Net weight		kg	472	240

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

Cooling Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB
Heating Indoor : 21˚CDB Outdoor : 7˚CDB/6˚CWB
Pipe length : 10m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

This unit consists of a conbination of PUHY-500YMF-B and PUHN-250YMF-B.

Model name			PUHY-750YSMF-B	
			Cooling	Heating
Capacity		kcal/h	75,000	84,000
		kW	87.3	97.7
		BTU/h	297,800	333,500
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	31.15	28.60
Current		A	51.4/48.8/47.1	47.7/45.3/43.7
Refrigerant / Lubricant			R22/MS32(N-1)	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 250 / 2 ~ 32	
Noise level		dB<A> (50/60Hz)	62.0 / 62.5	
Refrigerant piping diameter (main)	Liquid / Gas		ø 19.05 / ø 41.28	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (10˚CDB~43˚CDB with outdoor unit at lower position, or with indoor unit 20 or 25 type only is working)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB ~ 15.5˚CWB (-12˚CWB~10˚CWB with indoor unit 20 or 25 type only is working)

			PUHY-500YMF-B	PUHN-250YMF-B
Fan	Type× Quantity		Propeller fan ×2	Propeller fan ×1
	Airflow rate	m^3/min	370	185
	Motor output	kW	0.35 × 2	0.35 × 1
Compressor	Type		Hermetic	
	Motor output	kW	7.5 + 7.5	7.5
	Crankcase heater	kW	0.045 + 0.056	0.056
External dimension		mm	1715(H)× 1990(W)× 840(L)	1715(H)× 990(W)× 840(L)
Protection devices	High pressure protection		30kg/cm^2G(2.94MPa)	
	Compressor / Fan		Overcurrent protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	—
Refrigerant piping diameter	Liquid / Gas		ø 15.88 flare / ø 34.93 Flange	ø 12.7 flare / ø 28.58 Flange
Net weight		kg	472	255

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

Cooling Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB
Heating Indoor : 21˚CDB Outdoor : 7˚CDB/6˚CWB
Pipe length : 10m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

2. Capacity Tables

2-1. Correction by temperature

Cooling

•Standard Specifications

		PUHY-600YSMF-B	PUHY-650YSMF-B	PUHY-700YSMF-B	PUHY-750YSMF-B
Capacity	kcal/h	60,000	65,000	70,000	75,000
	kW	69.8	75.6	81.5	87.3
	BTU/h	238,200	258,100	277,900	297,800
Input	kW	24.85	26.75	29.25	31.15
Source	V	380/400/415			
Current	A	41.4/39.4/37.9	44.6/42.4/40.8	48.3/45.8/44.2	51.4/48.8/47.1

•Calculation

Capacity' = Capacity × Ratio

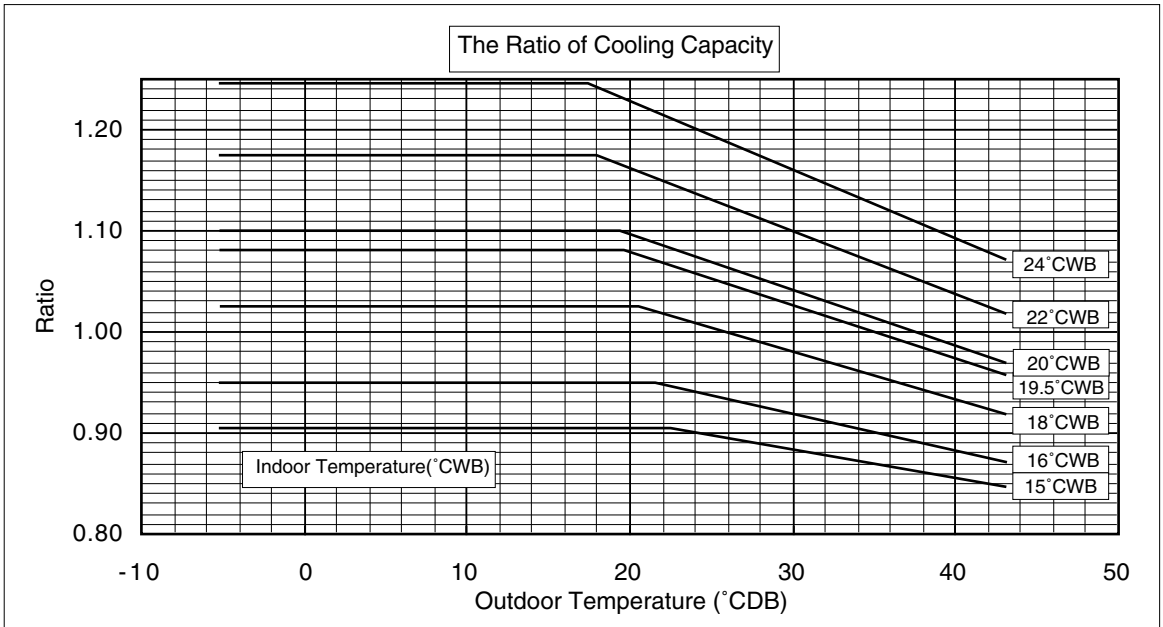
Input' = Input × Ratio

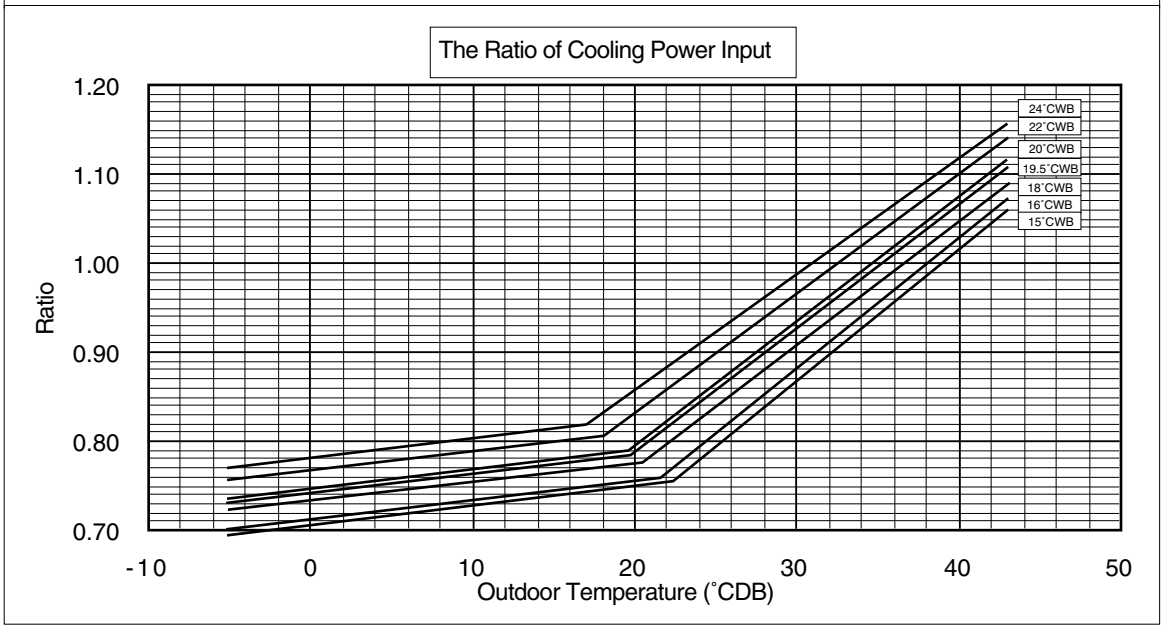
$$\text{Current}' = \frac{\text{Input}' \times 1000}{\sqrt{3} \times \text{Source}}$$

× 0.91(:PUHY-600·650YSMF-B)

× 0.92(:PUHY-700·750YSMF-B)

❋Capacity'
Input'
Current'
} After correction





Heating

•Standard Specifications

		PUHY-600YSMF-B	PUHY-650YSMF-B	PUHY-700YSMF-B	PUHY-750YSMF-B
Capacity	kcal/h	67,400	73,000	78,400	84,000
	kW	78.3	84.9	91.1	97.7
	BTU/h	267,500	289,800	311,200	333,500
Input	kW	22.70	24.70	26.60	28.60
Source	V	380/400/415			
Current	A	37.9/36.0/34.7	41.2/39.1/37.7	44.4/42.1/40.6	47.7/45.3/43.7

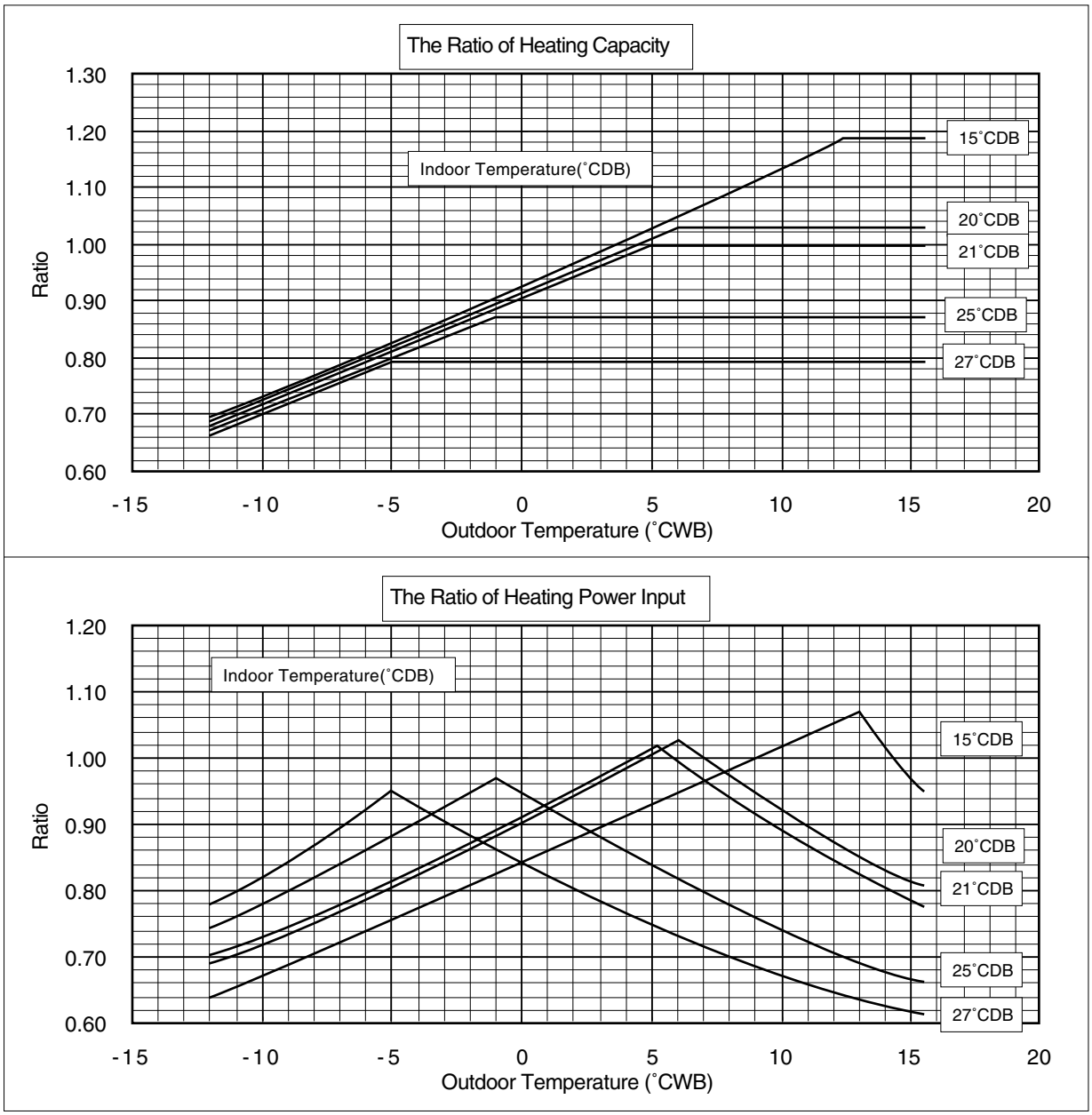
•Calculation

Capacity' = Capacity × Ratio

Input' = Input × Ratio

$$\text{Current'} = \frac{\text{Input'} \times 1000}{\sqrt{3} \times \text{Source} \times 0.91}$$ (:PUHY-600·650·700·750YSMF-B)

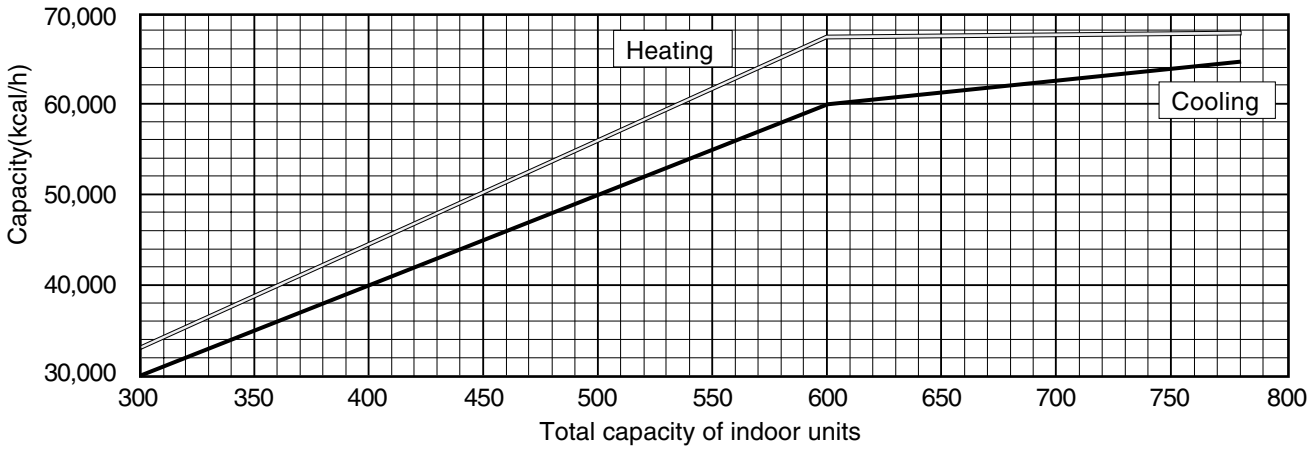
※Capacity'
Input'
Current'
} After correction



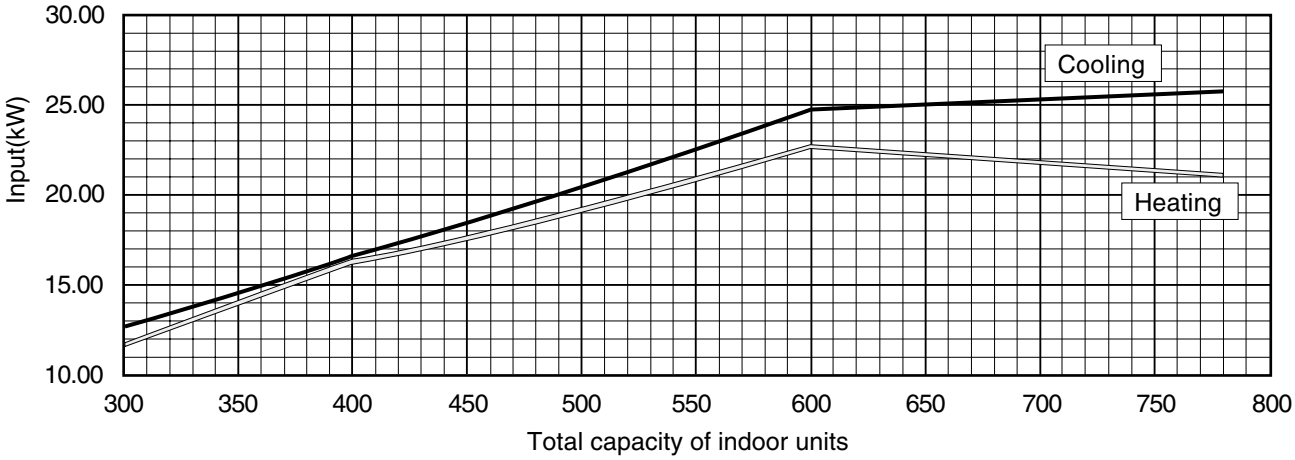
2-2. Correction by total indoor

PUHY-600YSMF-B

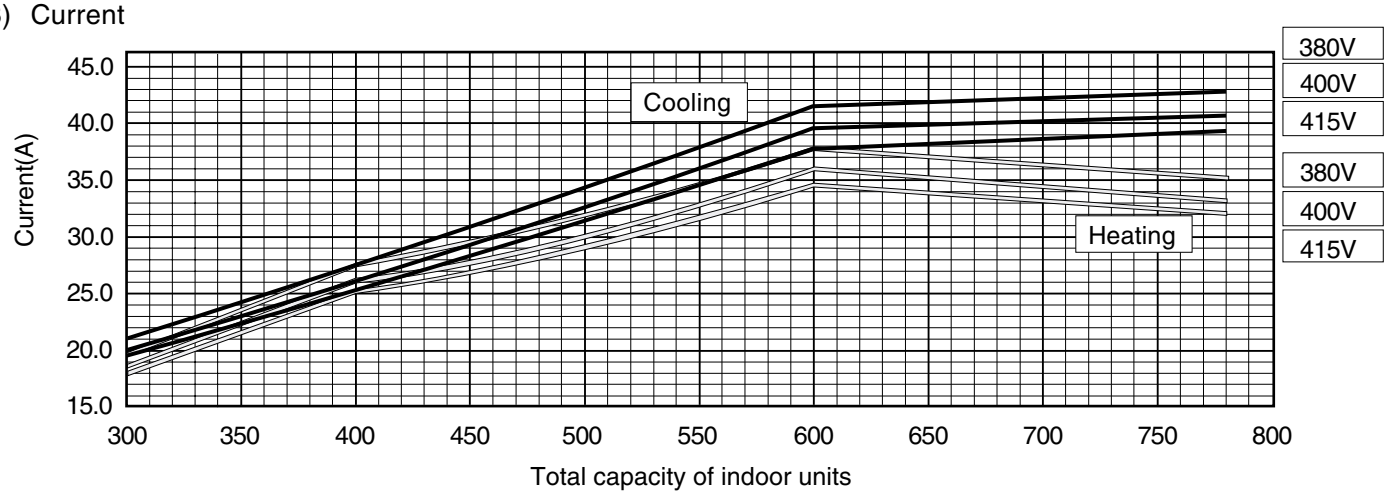
1) Capacity



2) Input

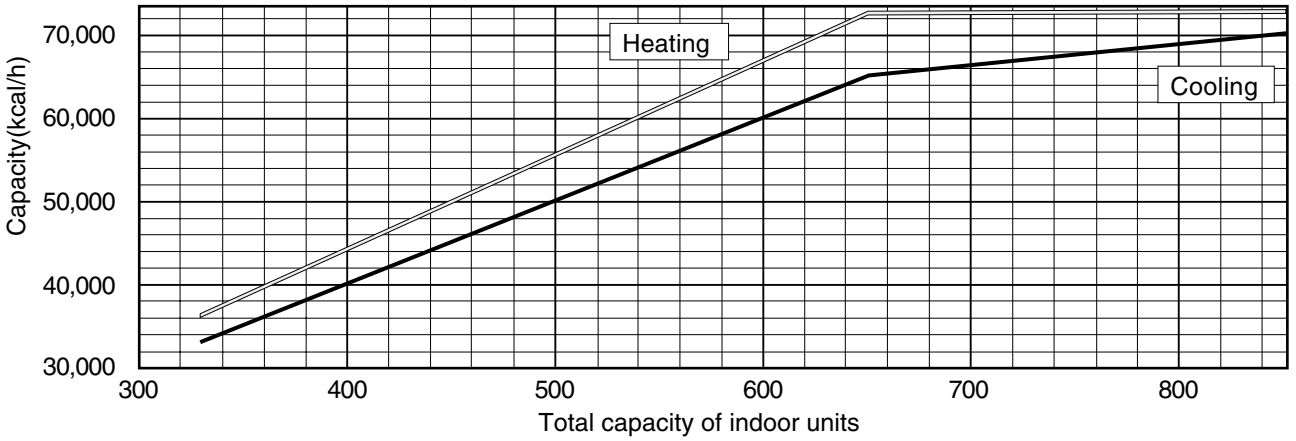


3) Current

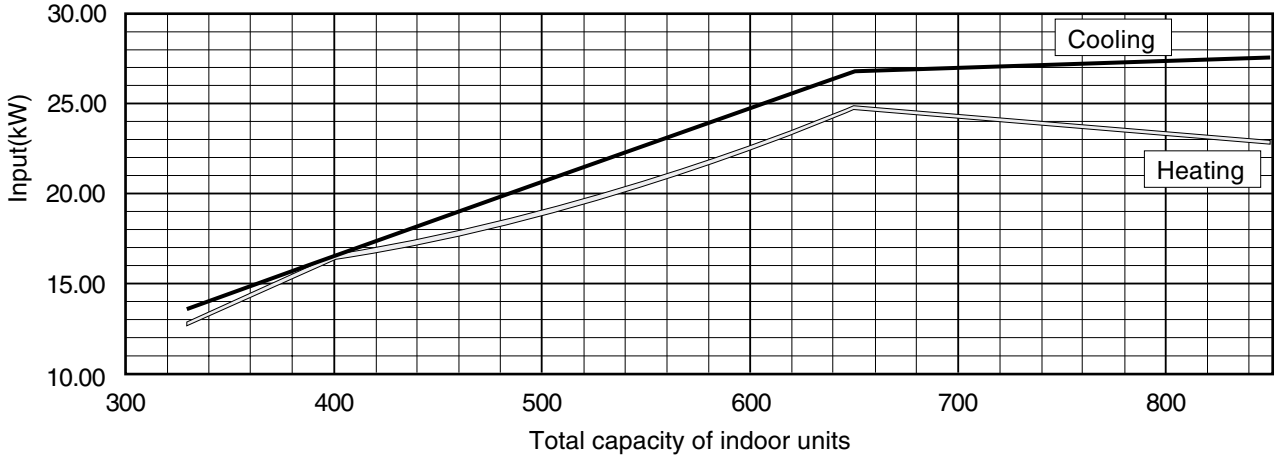


PUHY-650YSMF-B

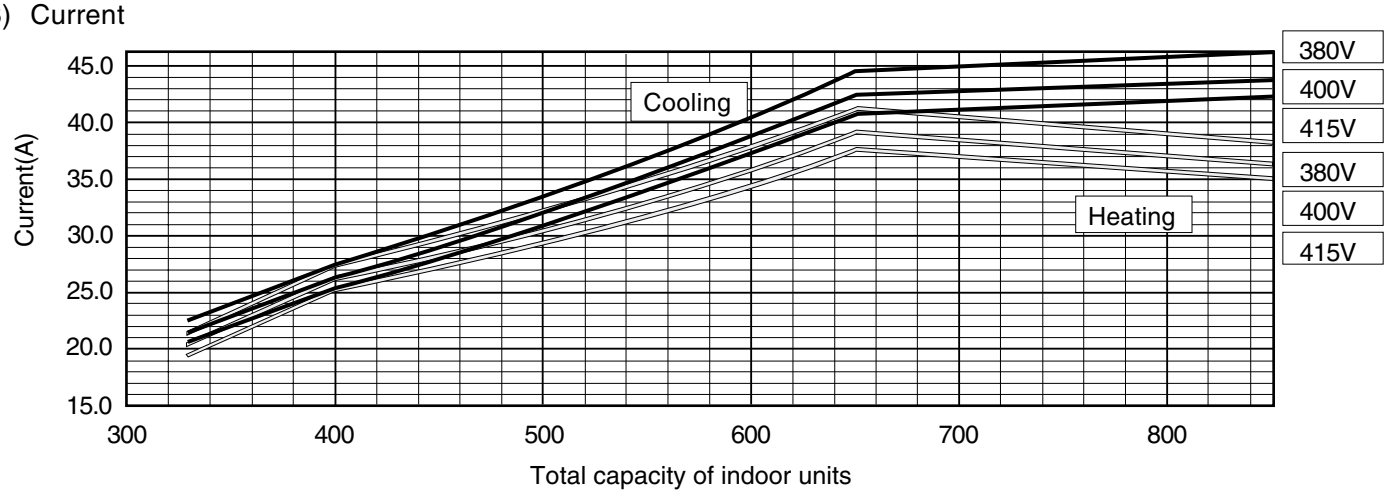
1) Capacity



2) Input

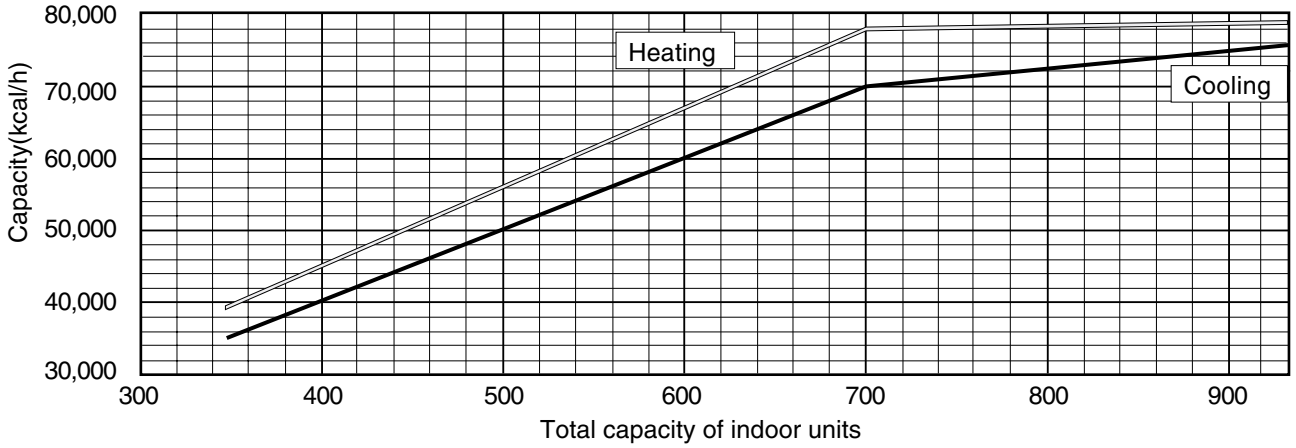


3) Current

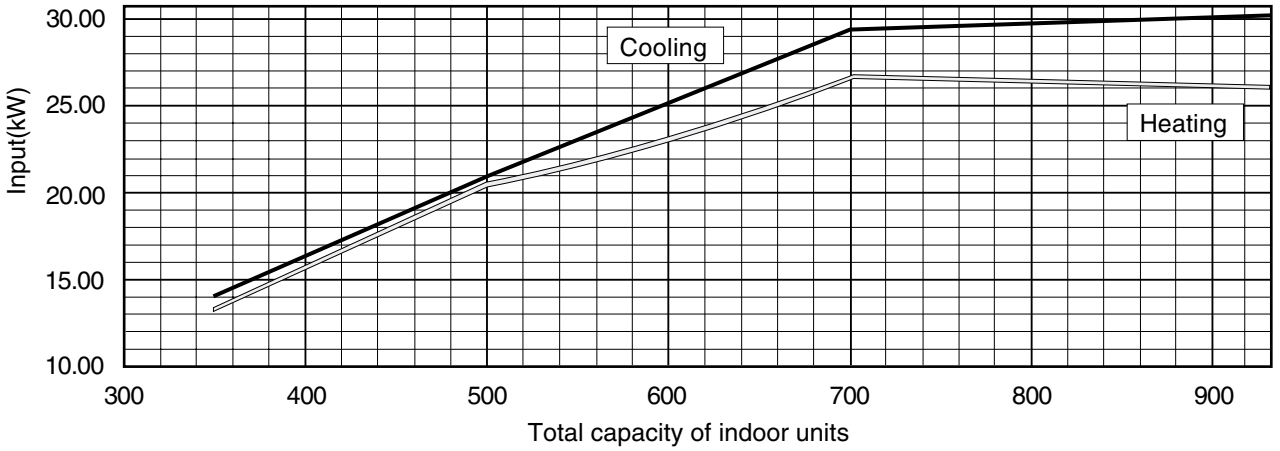


PUHY-700YSMF-B

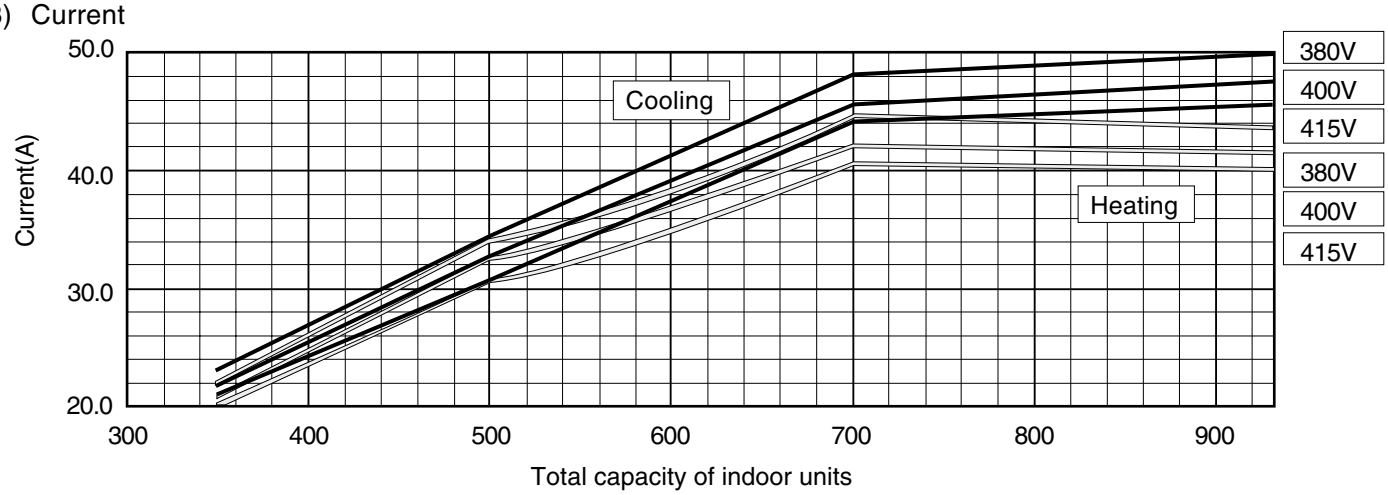
1) Capacity



2) Input

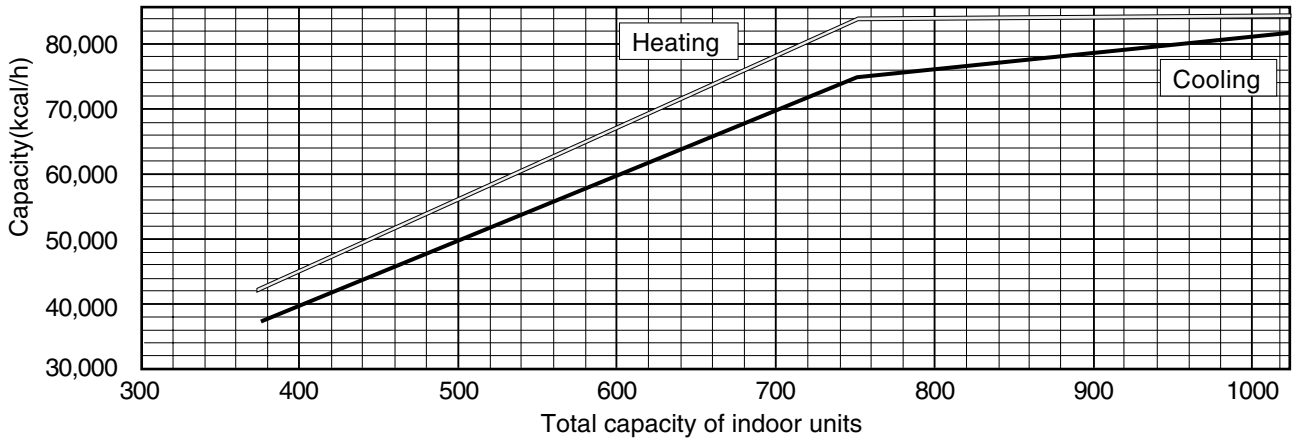


3) Current

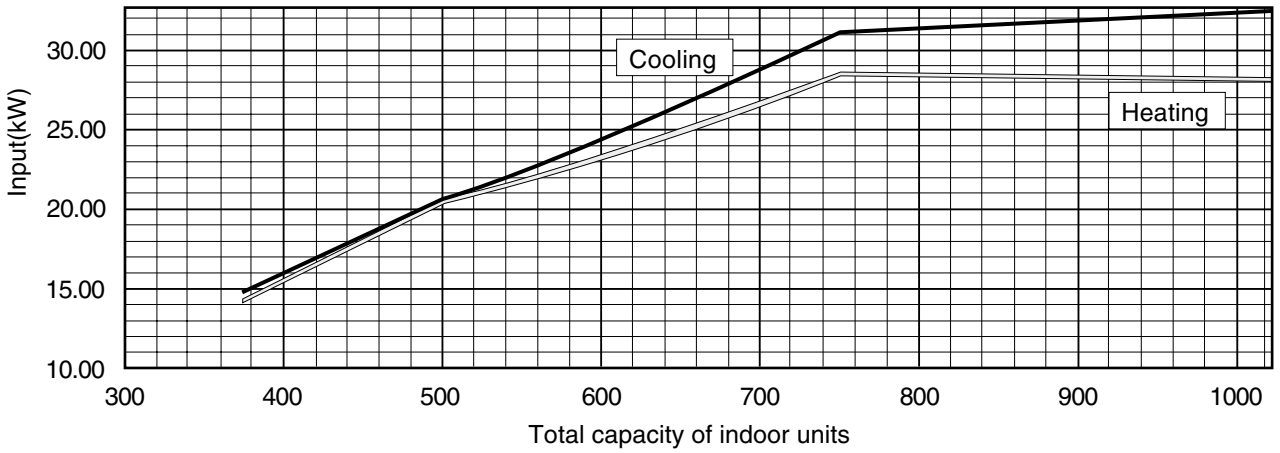


PUHY-750YSMF-B

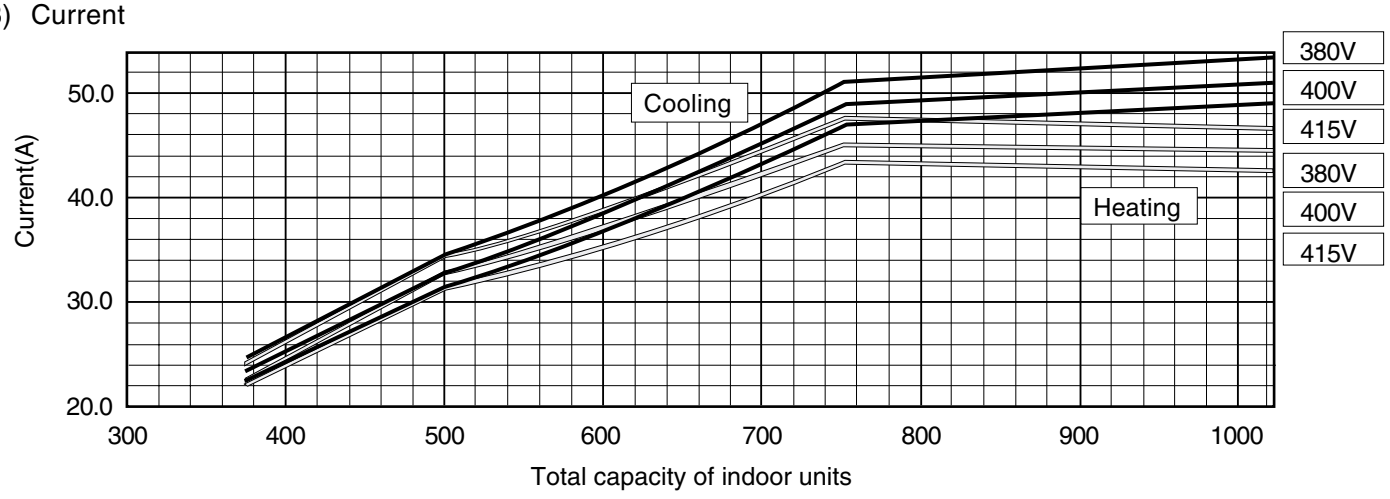
1) Capacity



2) Input



3) Current

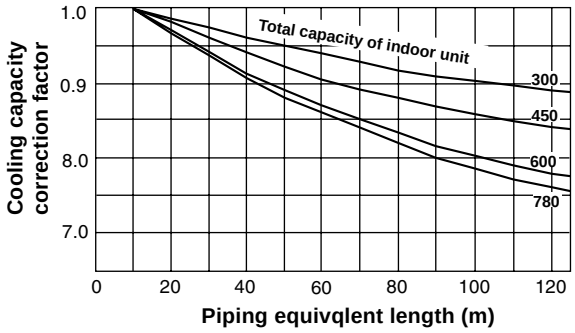


2-3 Correction by refrigerant piping length

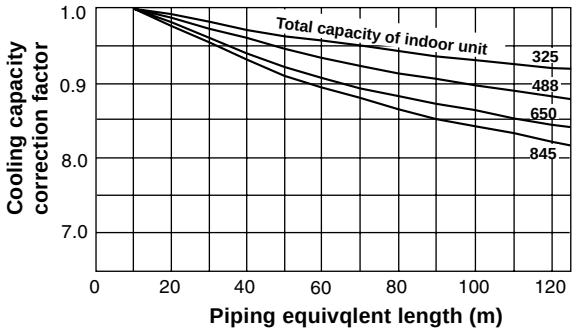
To obtain a decrease in cooling/heating capacity due to refrigerant piping extension, multiply by the capacity correction factor based on the refrigerant piping equivalent length in the table below.

• Cooling capacity correction

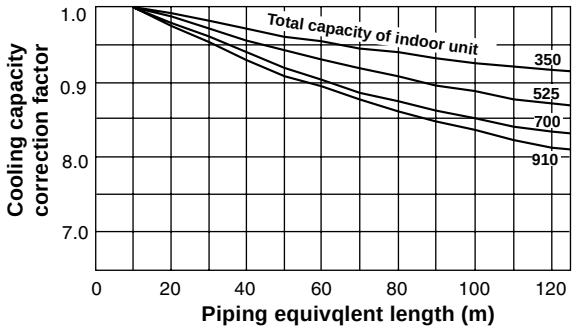
PUHY-600YSMF-B



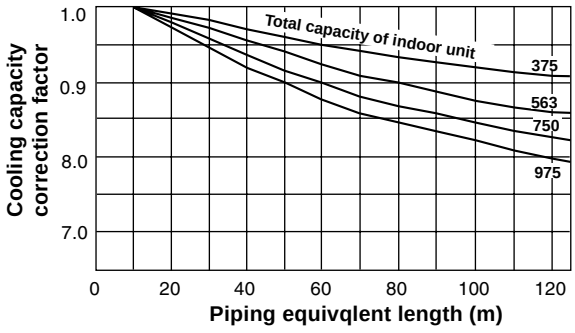
PUHY-650YSMF-B



PUHY-700YSMF-B

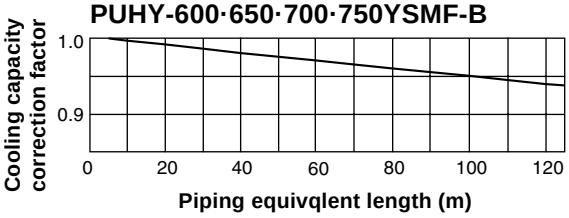


PUHY-750YSMF-B



• Heating capacity correction

PUHY-600·650·700·750YSMF-B



• How to obtain piping equivalent length

① **PUHY-600YSMF-B**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.80 × number of bent on the piping)m

② **PUHY-650 ~ 750YSMF-B**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.95 × number of bent on the piping)m

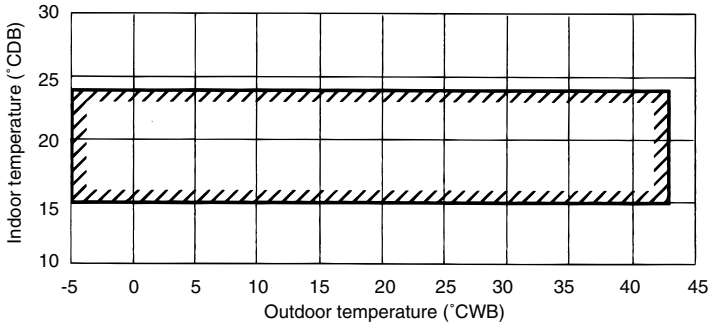
2-4 Correction at frosting and defrosting

When a decrease in heating capacity due to frosted and defrosting operations is considered, the value multiplied by the correction factor in the table below represents the heating capacity.

Outdoor inlet air temp (˚CWB)	6	4	2	0	-2	-4	-6	-8	-10
Correction factor	1.0	0.98	0.89	0.89	0.90	0.92	0.95	0.95	0.95

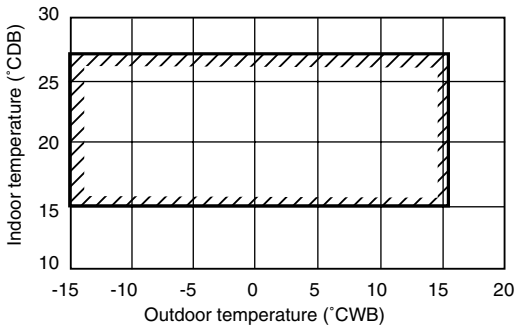
2-5 Operation limit

• Cooling



When the indoor unit is located above the outdoor unit for 4m or more, or indoor unit 20 or 25type only is working, the outdoor unit inlet air temperature becomes 10~43˚CDB.

• Heating



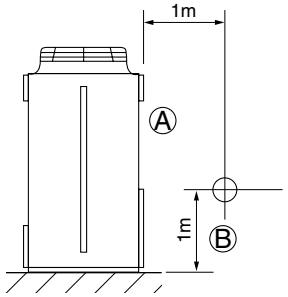
When the indoor unit 20 or 25type only is working, the outdoor unit inlet air temperature becomes -15~10˚CWB.

3. Sound Levels

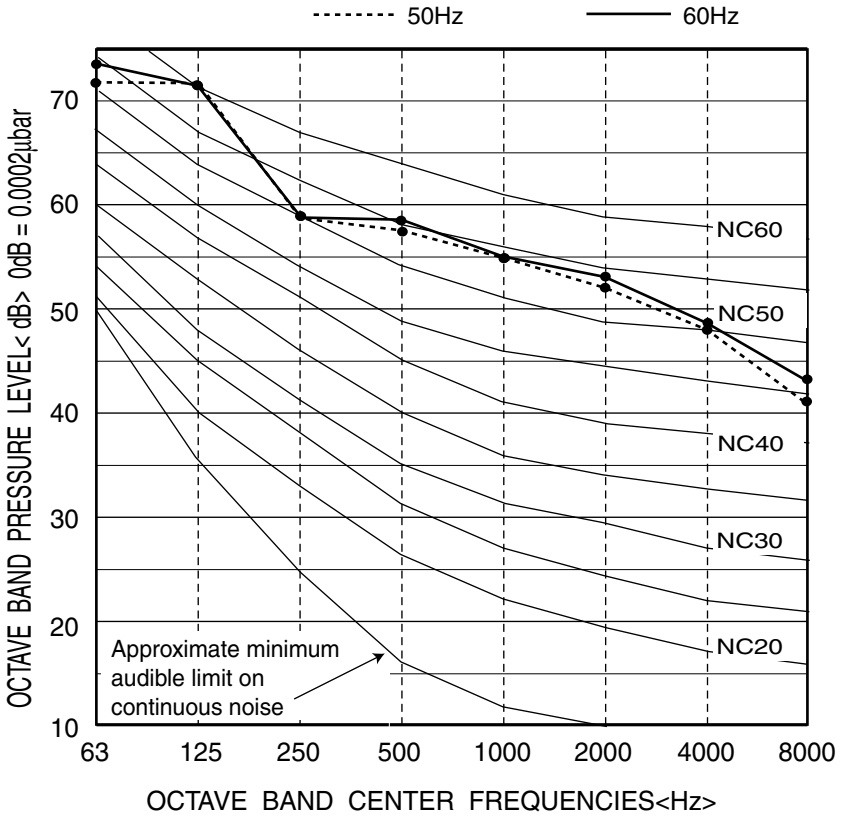
Super Y(R22)

PUHY-600YSMF-B

Measurement condition

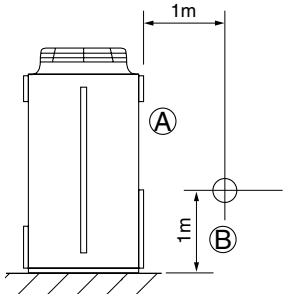


Sound pressure level in anechoic room
61.5 / 62.0 dB (A)

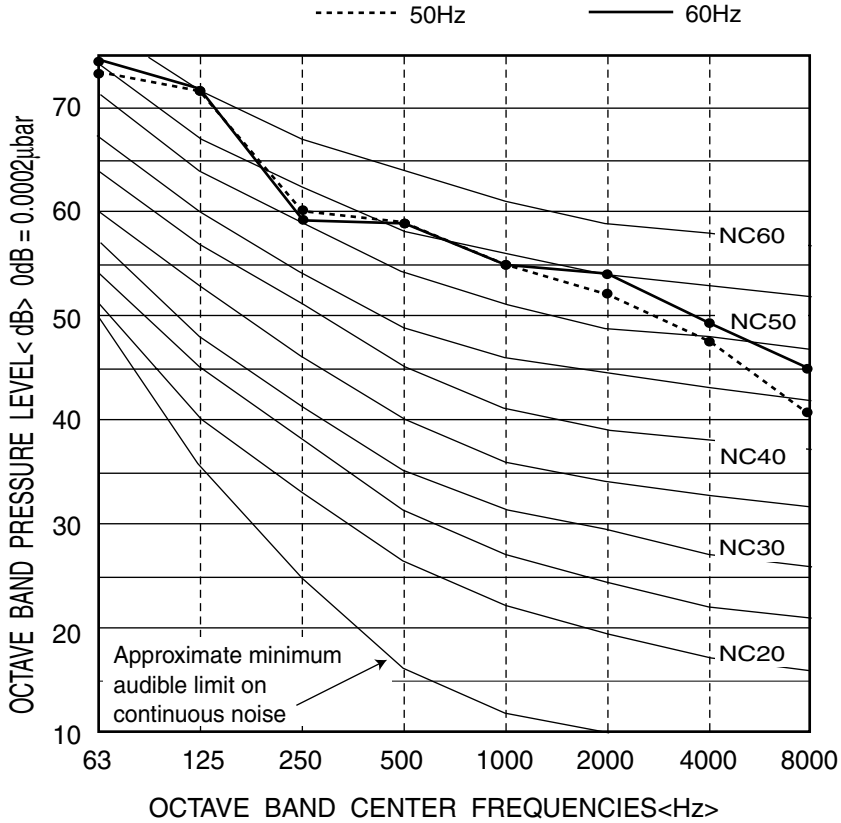


PUHY-650YSMF-B

Measurement condition

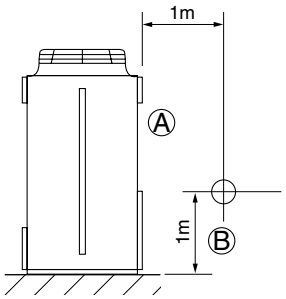


Sound pressure level in anechoic room
62.0 / 62.5 dB (A)

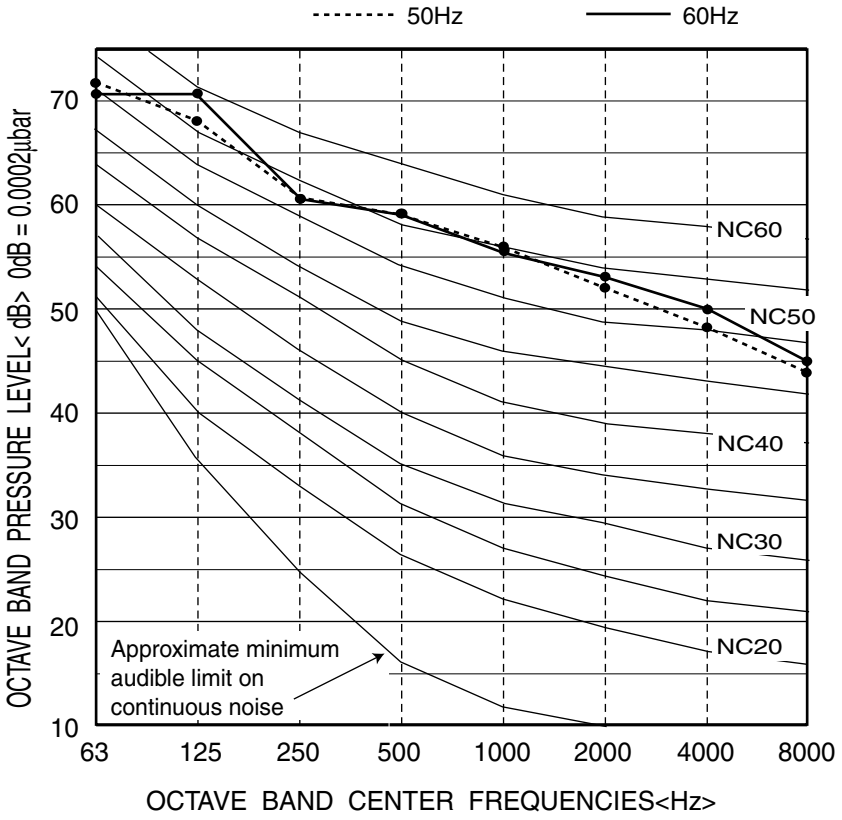


PUHY-700YSMF-B

Measurement condition

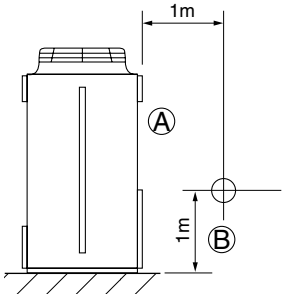


Sound pressure level in anechoic room
61.5 / 62.0 dB (A)

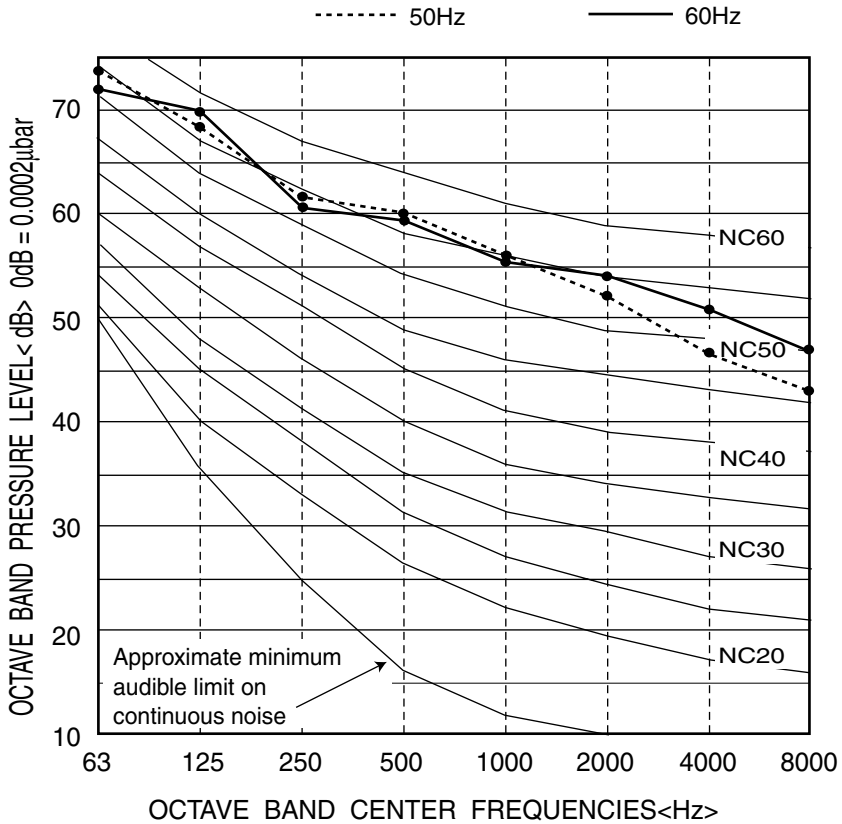


PUHY-750YSMF-B

Measurement condition



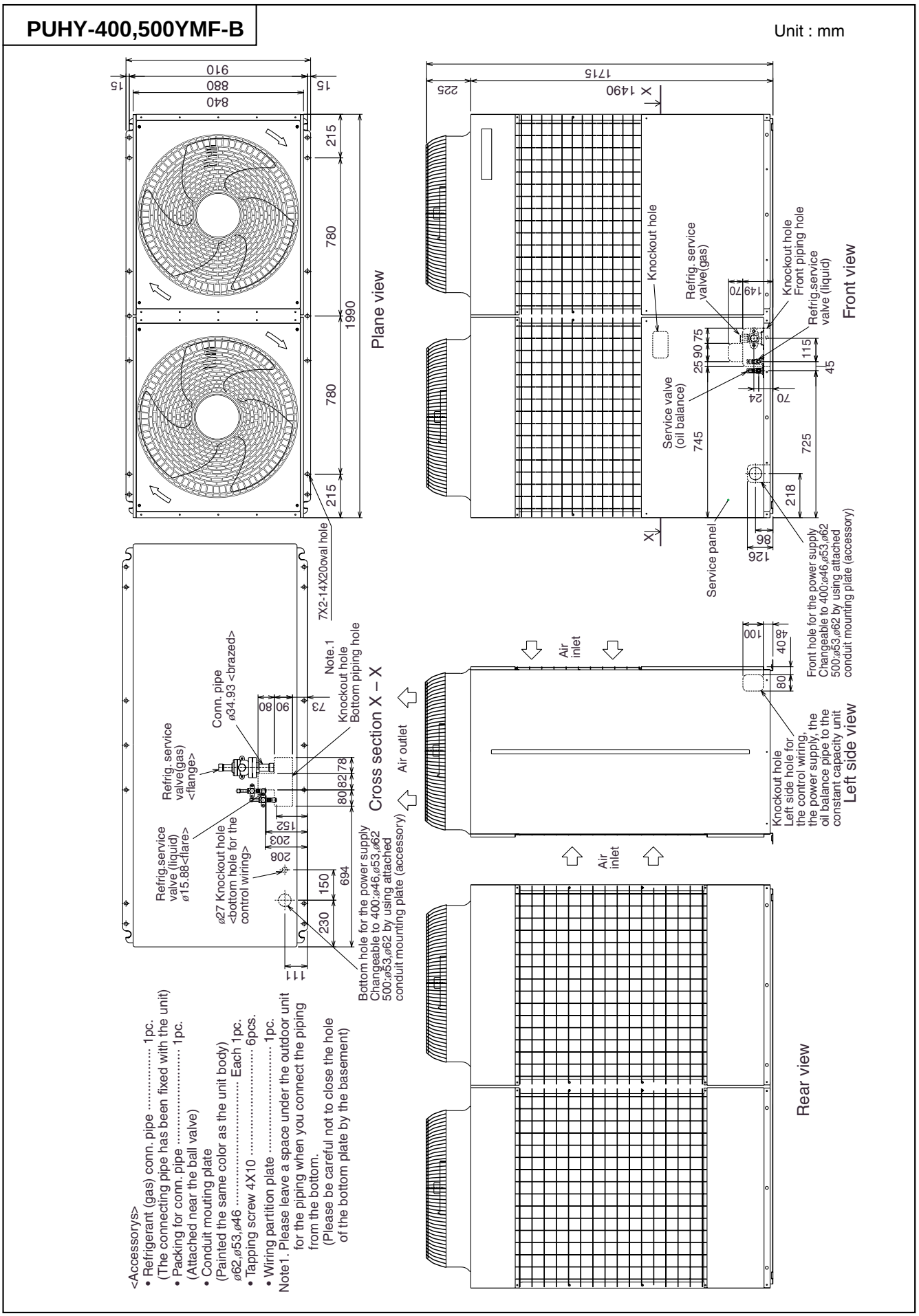
Sound pressure level in anechoic room
62.0 / 62.5 dB (A)



4. External Dimensions

PUHY-400,500YMF-B

Unit : mm

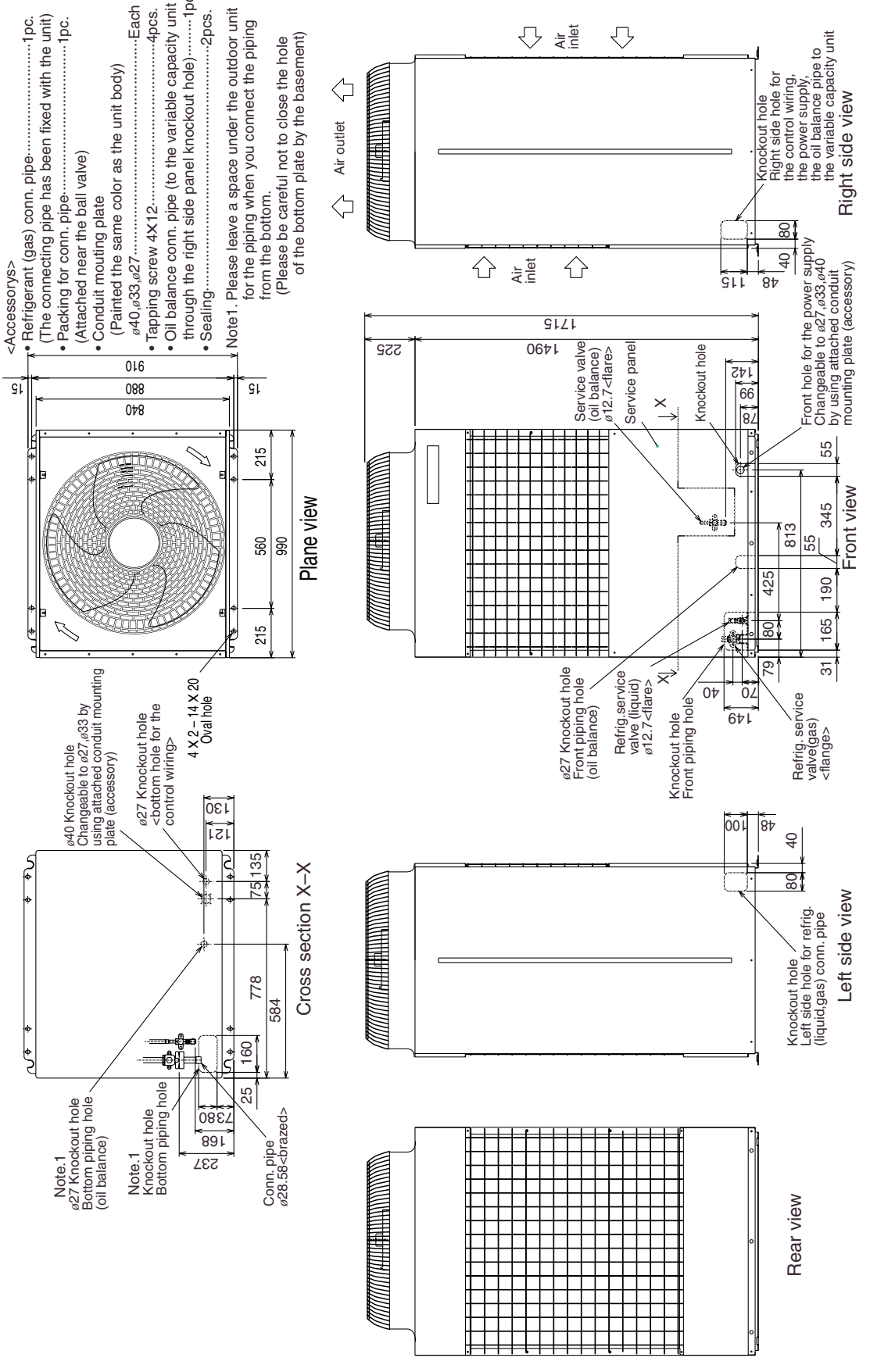

Plane view
Front view
Left side view
Rear view
Cross section X – X
Service panel
Service valve (oil balance)
Refrig. service valve(gas)
Refrig.service valve (liquid)
Knockout hole
Front piping hole
Air inlet
Air outlet
Knockout hole Left side hole for the control wiring, the power supply, the oil balance pipe to the constant capacity unit
Front hole for the power supply Changeable to 400:ø46,ø53,ø62 500:ø53,ø62 by using attached conduit mounting plate (accessory)
Refrig.service valve (liquid) ø15.88<flare>
ø27 Knockout hole <bottom hole for the control wiring>
Refrig. service valve(gas) <flange>
Conn. pipe ø34.93 <brazed>
Note.1 Knockout hole Bottom piping hole
7X2-14X20oval hole
Bottom hole for the power supply Changeable to 400:ø46,ø53,ø62 500:ø53,ø62 by using attached conduit mounting plate (accessory)

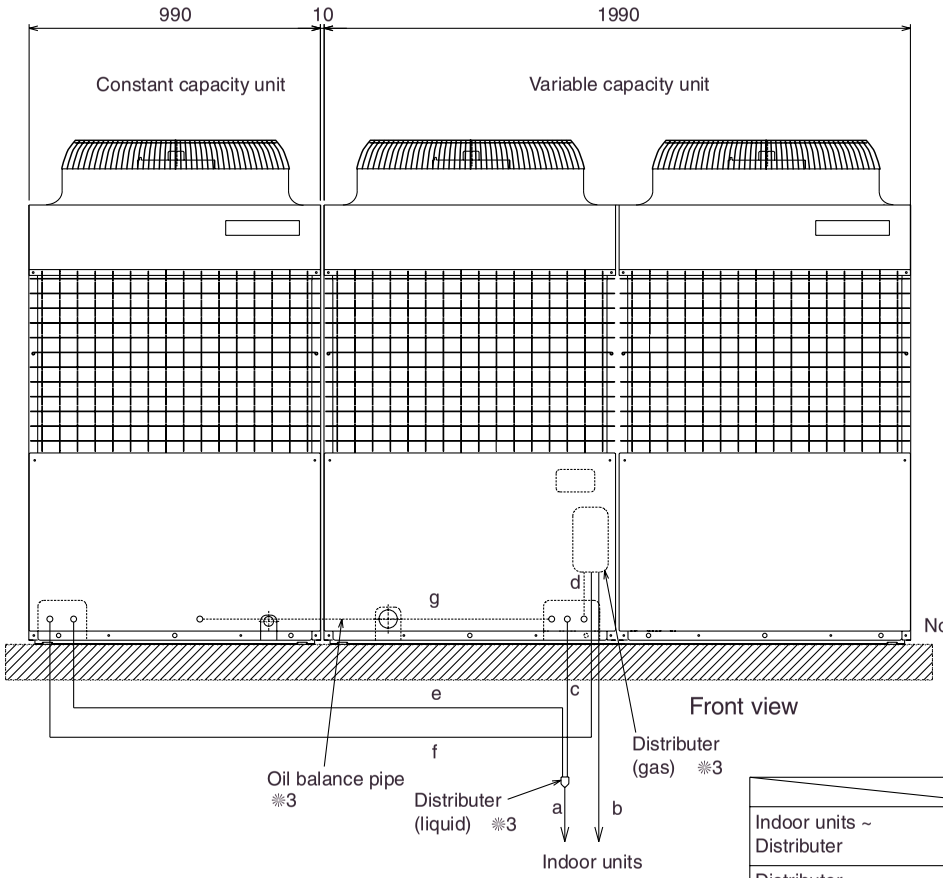
<Accessorys>
- Refrigerant (gas) conn. pipe ..... 1pc. (The connecting pipe has been fixed with the unit)
- Packing for conn. pipe ..... 1pc. (Attached near the ball valve)
- Conduit mouting plate (Painted the same color as the unit body) ø62,ø53,ø46 ..... Each 1pc.
- Tapping screw 4X10 ..... 6pcs.
- Wiring partition plate ..... 1pc.

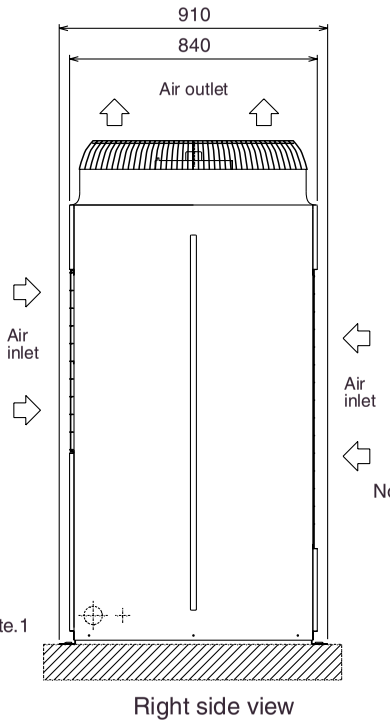
Note1. Please leave a space under the outdoor unit for the piping when you connect the piping from the bottom. (Please be careful not to close the hole of the bottom plate by the basement)

PUHN-200, 250YMF-B

Unit : mm


<Accessorys>
• Refrigerant (gas) conn. pipe.....1pc.
(The connecting pipe has been fixed with the unit)
• Packing for conn. pipe.....1pc.
(Attached near the ball valve)
• Conduit mouting plate
(Painted the same color as the unit body)
ø40,ø33,ø27.....Each 1pc.
• Tapping screw 4X12.....4pcs.
• Oil balance conn. pipe (to the variable capacity unit through the right side panel knockout hole).....1pc.
• Sealing.....2pcs.
Note1. Please leave a space under the outdoor unit for the piping when you connect the piping from the bottom.
(Please be careful not to close the hole of the bottom plate by the basement)
Plane view
4 X 2 – 14 X 20 Oval hole
ø40 Knockout hole Changeable to ø27,ø33 by using attached conduit mounting plate (accessory)
ø27 Knockout hole <bottom hole for the control wiring>
Cross section X–X
Note.1 ø27 Knockout hole Bottom piping hole (oil balance)
Note.1 Knockout hole Bottom piping hole
Conn. pipe ø28.58<brazed>
Air outlet
Air inlet
Knockout hole Right side hole for the control wiring, the power supply, the oil balance pipe to the variable capacity unit
Right side view
Service valve (oil balance) ø12.7<flare>
Service panel
Knockout hole
Front hole for the power supply Changeable to ø27,ø33,ø40 by using attached conduit mounting plate (accessory)
Front view
ø27 Knockout hole Front piping hole (oil balance)
Refrig.service valve (liquid) ø12.7<flare>
Knockout hole Front piping hole
Refrig.service valve(gas) <flange>
Knockout hole Left side hole for refrig. (liquid,gas) conn. pipe
Left side view
Rear view





Note 1.Please install the constant capacity unit and the variable capacity unit on a same level stand.
2.Pipe size is as follws.
3.Please install the constant capacity unit and the variable capacity unit side by side, the constant capacity unit on the left side and the variable capacity unit on the right side.
4.Optional kits(CMC-30A) is needed to compose PUHY-600~750YSMF-B.

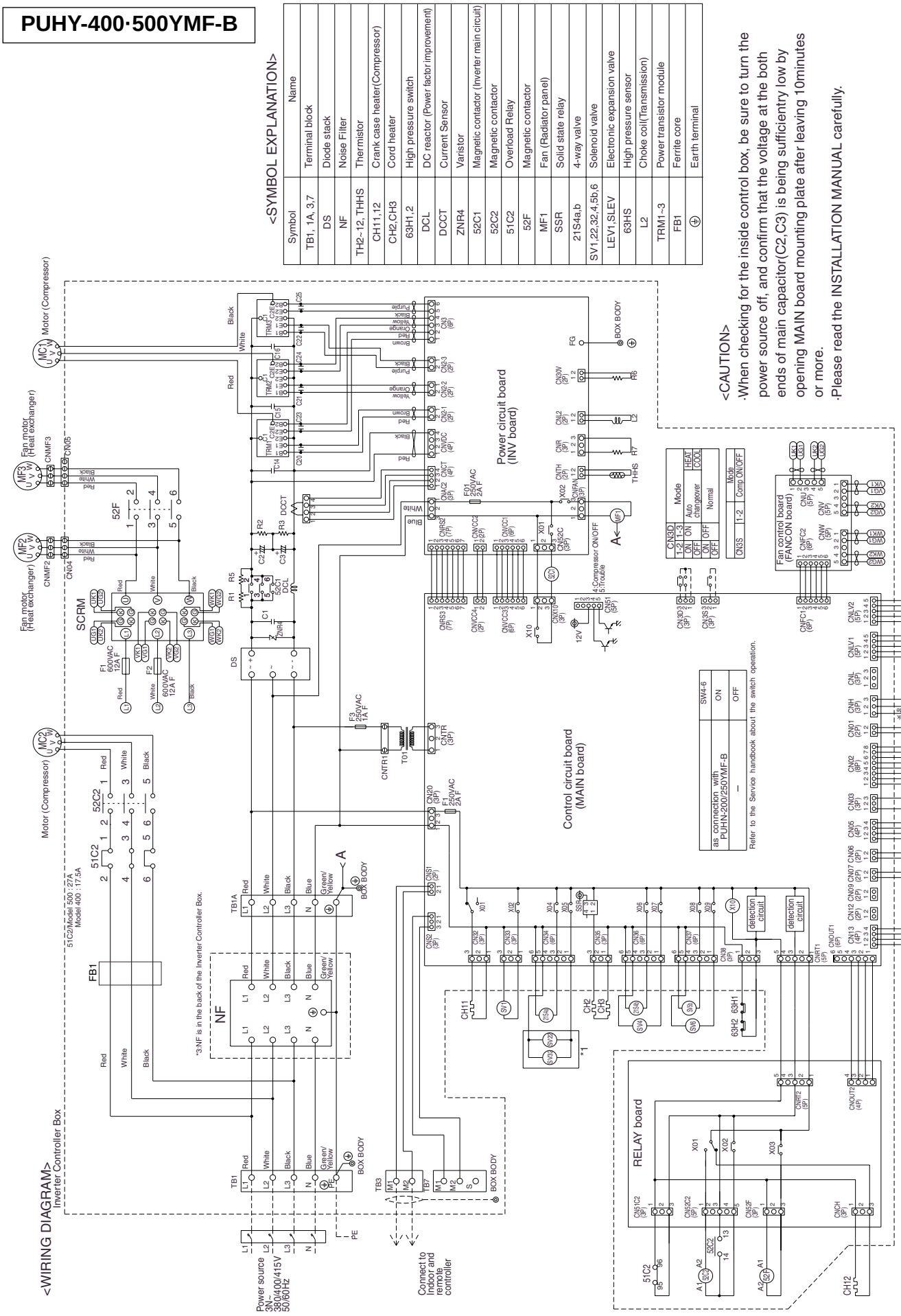
			600	650	700	750
Indoor units ~ Distributer	liquid	a	ø19.05			
	gas	b	ø34.93	ø41.28		
Distributer ~ Variable capacity unit	liquid	c	ø15.88			
	gas	d	ø34.93 ※1			
Distributer ~ Constant capacity unit	liquid	e	ø12.7			
	gas	f	ø28.58			
Oil balance pipe		g	ø12.7 ※2			

※1 This pipe has been fixed.
※2 The oil balance pipe is usually fixed inside of the unit.
※3 Option (CMC-30A)

Unit : mm

5. Electrical Wiring Diagram

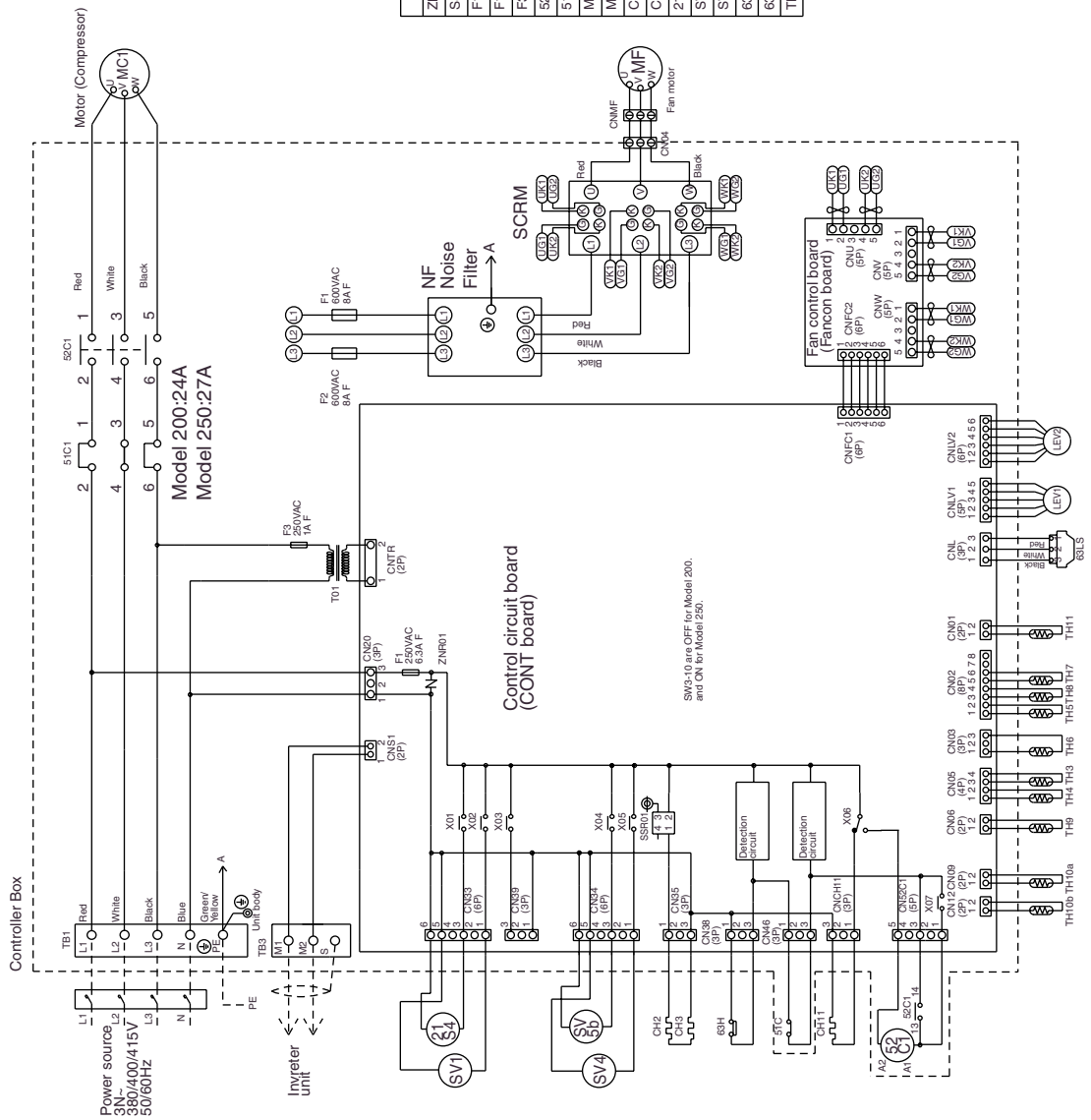
PUHY-400·500YMF-B


<SYMBOL EXPLANATION>
Symbol | Name
TB1, 1A, 3,7 | Terminal block
DS | Diode stack
NF | Noise Filter
TH2~12, THHS | Thermistor
CH11,12 | Crank case heater(Compressor)
CH2,CH3 | Cord heater
63H1,2 | High pressure switch
DCL | DC reactor (Power factor improvement)
DCCT | Current Sensor
ZNR4 | Varistor
52C1 | Magnetic contactor (Inverter main circuit)
52C2 | Magnetic contactor
51C2 | Overload Relay
52F | Magnetic contactor
MF1 | Fan (Radiator panel)
SSR | Solid state relay
21S4a,b | 4-way valve
SV1,22,32,4,5b,6 | Solenoid valve
LEV1,SLEV | Electronic expansion valve
63HS | High pressure sensor
L2 | Choke coil(Transmission)
TRM1~3 | Power transistor module
FB1 | Ferrite core
⊕ | Earth terminal
<CAUTION>
·When checking for the inside control box, be sure to turn the power source off, and confirm that the voltage at the both ends of main capacitor(C2,C3) is being sufficientry low by opening MAIN board mounting plate after leaving 10minutes or more.
·Please read the INSTALLATION MANUAL carefully.
<WIRING DIAGRAM>
Inverter Controller Box
Power circuit board (INV board)
Control circuit board (MAIN board)
Fan control board (FANCON board)
RELAY board
SCRM
Motor (Compressor)
Fan motor (Heat exchanger)
Power source 3N~ 380/400/415V 50/60Hz
Connect to Indoor and remote controller
BOX BODY
*3:NF is in the back of the Inverter Controller Box.
51C2/Model 500 : 27A
Model 400 : 17.5A
as connection with PUHN-200/250YMF-B
Refer to the Service Handbook about the switch operation.
There are not "*1" on "PUHY-400YMF-B".

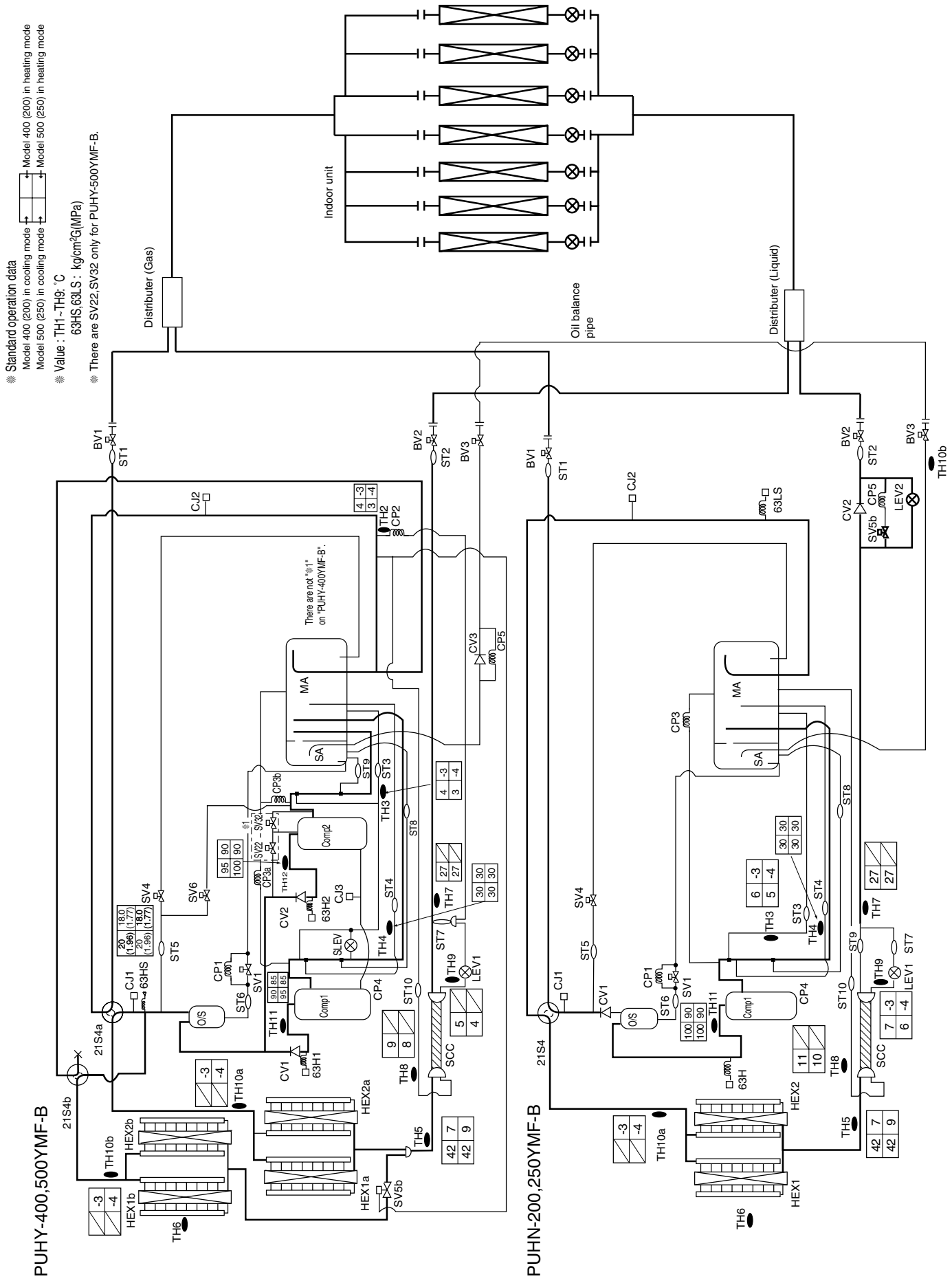
PUHN-200·250YMF-B

SYMBOL	NAME
ZNR01	VARISTOR
SSR	SOLID STATE RELAY
F1	FUSE(6.3A)
F1,F2	FUSE(8A)
F3	FUSE(1A)
52C1	MAGNET CNTACTOR
51C1	OVER CURRENT RELAY
MC1	ELECTRIC MOTOR OF COMPRESSOR
MF	FAN MOTOR(HEAT EXCHANGER)
CH11	CRANK CASE HEATER(COMPRESSOR)
CH2,CH3	CORD HEATER
21S4	4-WAY VALVE
SV1,SV4	SORENOID VALVE
SV5b	SORENOID VALVE
63H	HIGH PRESSURE CUT OUT SWITCH
63LS	LOW SIDE PRESSURE SENSOR
TH11	THERMISTER

SYMBOL	NAME
TH3	THERMISTER
TH4	THERMISTER
TH5	THERMISTER
TH6	THERMISTER
TH7	THERMISTER
TH8	THERMISTER
TH9	THERMISTER
TH10a	THERMISTER
TH10b	THERMISTER
LEV1	ELECTRONIC EXPANSION VALVE
LEV2	ELECTRONIC EXPANSION VALVE
X01~X07	RELAY
SW2,SW3	SWITCH
SWU1,2	SWITCH
TB1	POWER SOURCE TERMINAL BLOCK
⏚	EARTH TERMINAL



6. Refrigerant Circuit Diagram And Thermal Sensor



Super Y(R22)

PURY-200YMF-C, PURY-250YMF-C

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6. Refrigerant Circuit Diagram And Thermal Sensor 181

1. Specifications

R2(R22)

Model name			PURY-200YMF-C	
			Cooling	Heating
Capacity		kW	∗1 22.4	25.0
		kcal/h	∗2 20,000	-
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	8.64	7.98
Current		A	14.5/13.8/13.3	13.4/12.7/12.3
Fan	Type ×Quantity		Propeller fan ×1	
	Airflow rate	m^3/min	185	
	Motor output	kW	0.38	
Compressor	Type		Hermetic	
	Motor output	kW	5.5	
	Crankcase heater	kW	0.062(240V)	
Refrigerant / Lubricant			R22/MS32(N-1)	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
External dimension		mm	1715(H) ×990(W) ×840(L)	
Protection devices	High pressure protection		2.94MPa	
	Compressor / Fan		Over current protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	
Refrigerant piping diameter		High press. / Low press.	ø19.05 flare / ø25.4 Flange	
Indoor unit	Total capacity		50 ~ 150% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 250 / 1 ~ 15	
Noise level		dB<A>	56	
Net weight		kg	238	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB ~ 15.5˚CWB
			※-5˚CDB/-6˚CWB ~ 21˚CDB/15.5˚CWB with cooling/heating mixed operation.	

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

∗1 **Cooling** Indoor : 27˚CDB/19˚CWB Outdoor : 35˚CDB
Heating Indoor : 20˚CDB Outdoor : 7˚CDB/6˚CWB
Pipe length : 7.5m Height difference : 0m

∗2 **Cooling** Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB
Pipe length : 5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

Model name			PURY-250YMF-C	
			Cooling	Heating
Capacity		kW	∗1 28.0	31.5
		kcal/h	∗2 25,000	-
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	10.89	10.15
Current		A	18.3/17.4/16.8	17.1/16.2/15.6
Fan	Type× Quantity		Propeller fan× 1	
	Airflow rate	m³/min	185	
	Motor output	kW	0.38	
Compressor	Type		Hermetic	
	Motor output	kW	7.5	
	Crankcase heater	kW	0.062(240V)	
Refrigerant / Lubricant			R22/MS32(N-1)	
External finish			Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
External dimension		mm	1715(H)× 990(W)× 840(L)	
Protection devices	High pressure protection		2.94MPa	
	Compressor / Fan		Over current protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	
Refrigerant piping diameter		High press. / Low press.	ø 19.05 flare / ø 28.58 Flange	
Indoor unit	Total capacity		50 ~ 150% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 250 / 1 ~ 16	
Noise level		dB<A>	57	
Net weight		kg	240	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB ~ 15.5˚CWB
			※-5˚CDB/-6˚CWB ~ 21˚CDB/15.5˚CWB with cooling/heating mixed operation.	

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

∗1 **Cooling** Indoor : 27˚CDB/19˚CWB Outdoor : 35˚CDB
Heating Indoor : 20˚CDB Outdoor : 7˚CDB/6˚CWB
Pipe length : 7.5m Height difference : 0m

∗2 **Cooling** Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB
Pipe length : 5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

2. Capacity tables

2-1. Correction by temperature

Cooling

• Standard Specifications

		PURY-200YMF-C	PURY-250YMF-C
Capacity	kW	22.4	28.0
Input	kW	8.64	10.89
Source	V	380/400/415	
Current	A	14.5/13.8/13.3	18.3/17.4/16.8

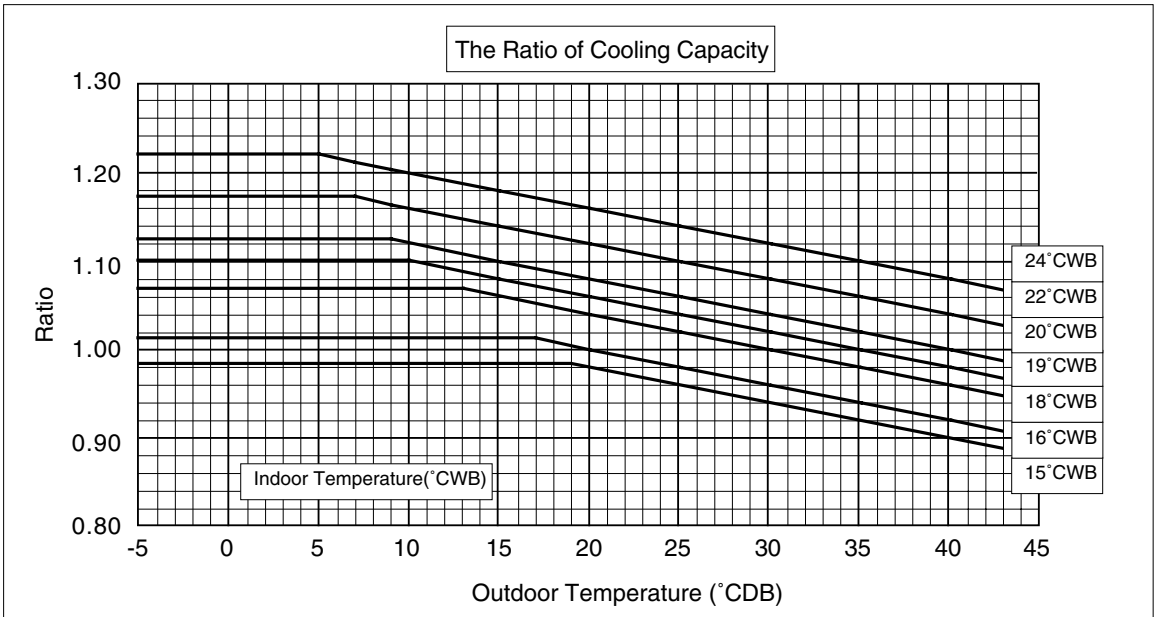
• Calculation

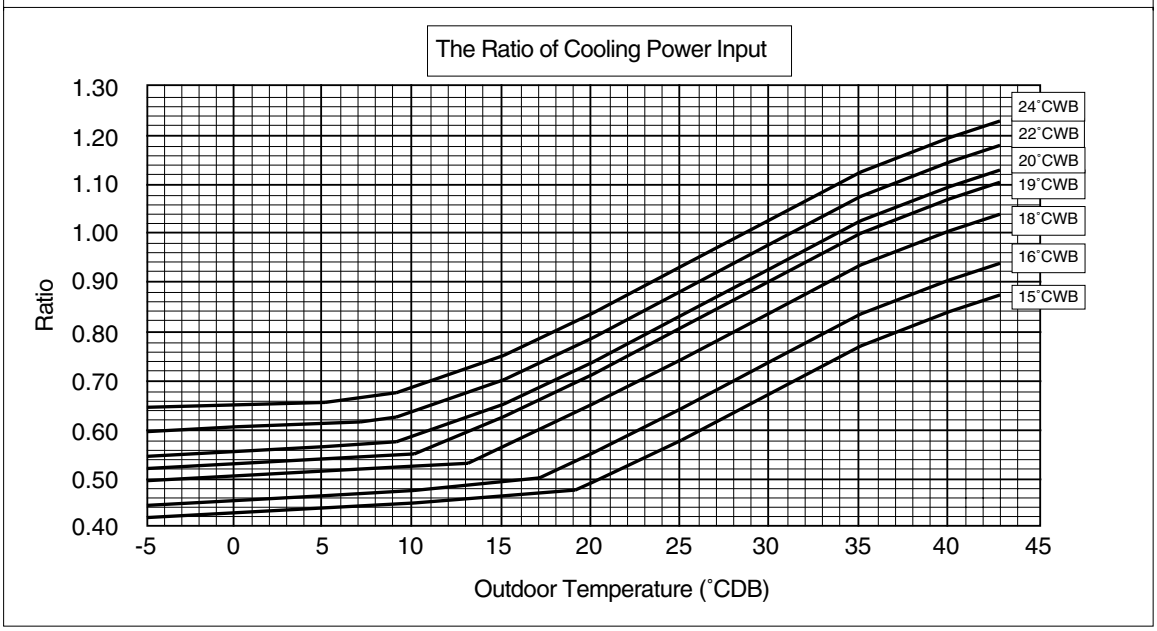
$$\text{Capacity}' = \text{Capacity} \times \text{Ratio}$$

$$\text{Input}' = \text{Input} \times \text{Ratio}$$

$$\text{Current}' = \frac{\text{Input}' \times 1000}{\sqrt{3} \times \text{Source} \times 0.90}$$

❋ Capacity', Input', Current' — After correction





Heating

• Standard Specifications

		PURY-200YMF-C	PURY-250YMF-C
Capacity	kW	26.0	32.6
Input	kW	7.98	10.15
Source	V	380/400/415	
Current	A	13.4/12.7/12.3	17.1/16.2/15.6

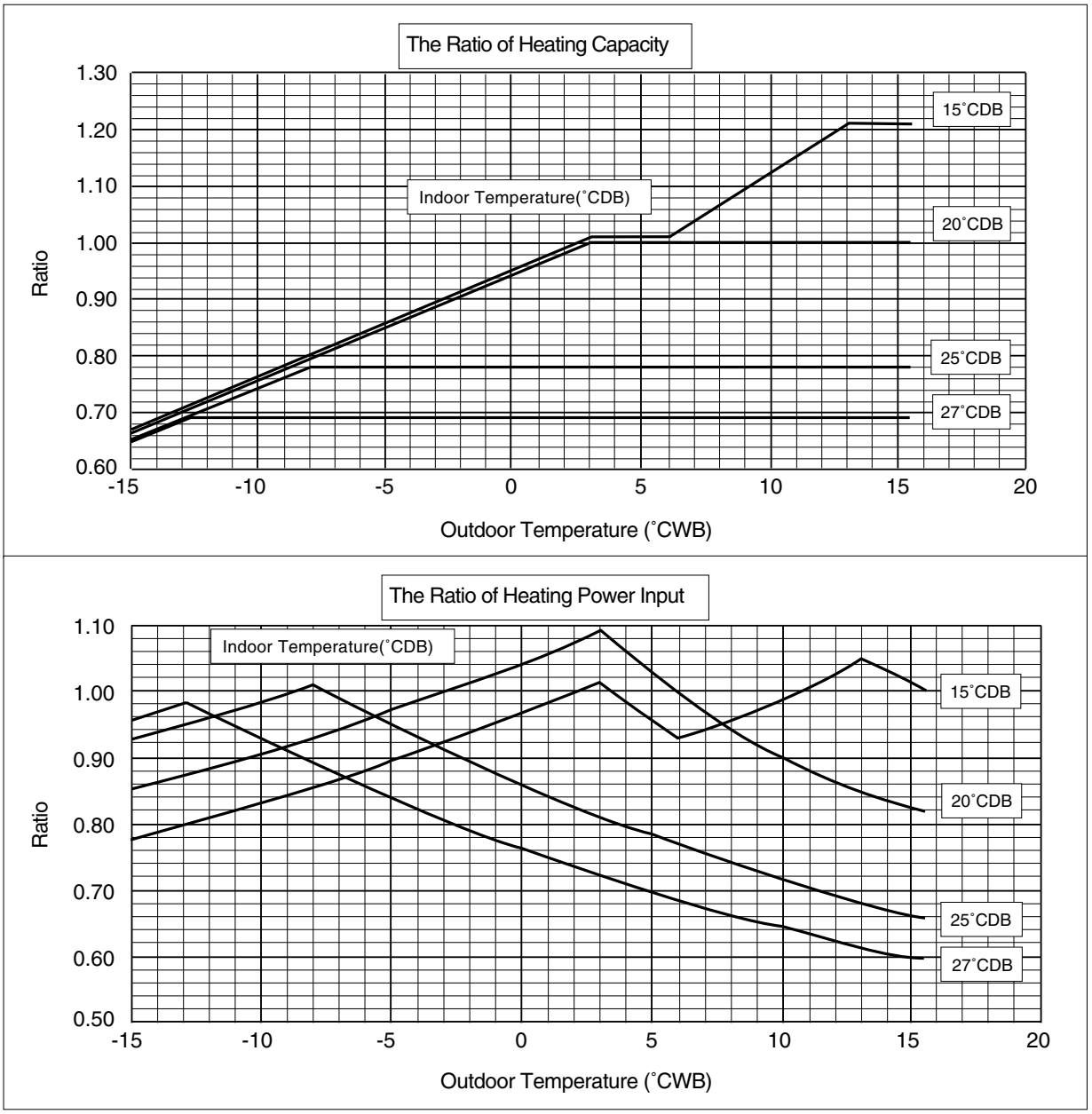
• Calculation

$$\text{Capacity}' = \text{Capacity} \times \text{Ratio}$$

$$\text{Input}' = \text{Input} \times \text{Ratio}$$

$$\text{Current}' = \frac{\text{Input}' \times 1000}{\sqrt{3} \times \text{Source} \times 0.90}$$

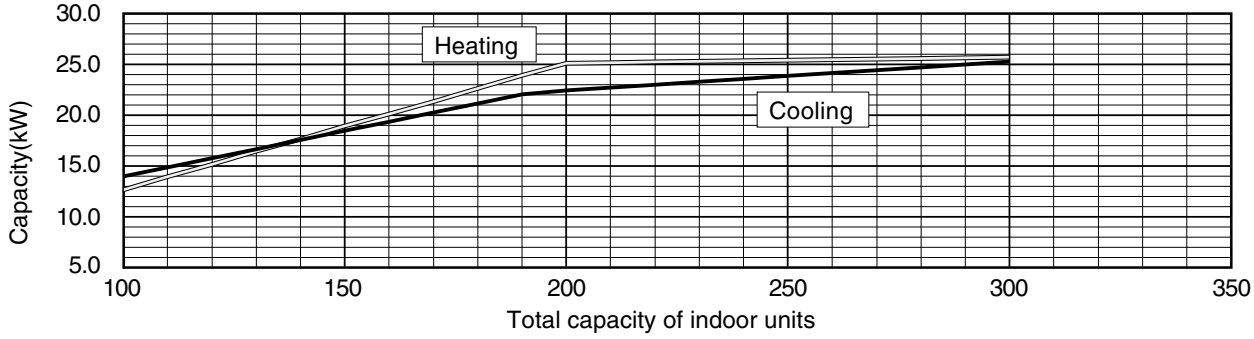
※Capacity'
Input'
Current'
} After correction



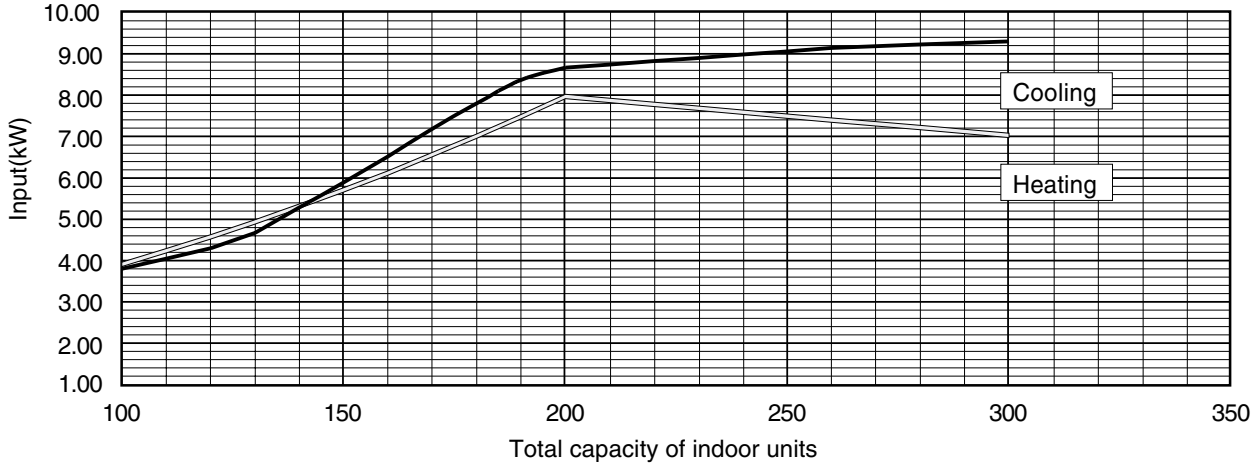
2-2. Correction by total indoor

PURY-200YMF-C

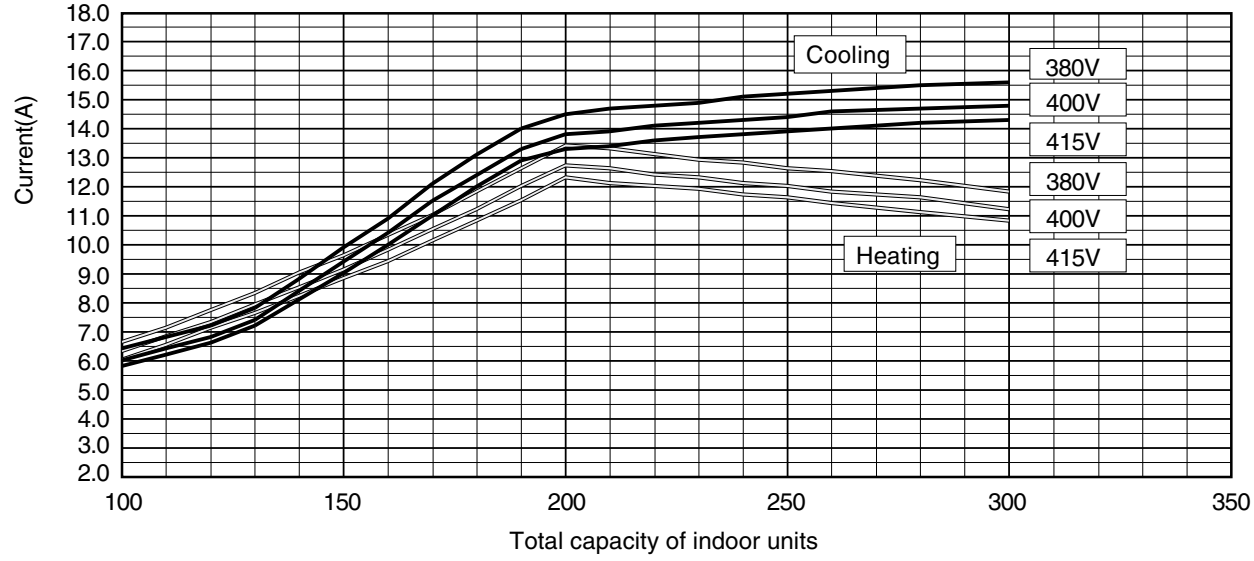
1) Capacity



2) Input

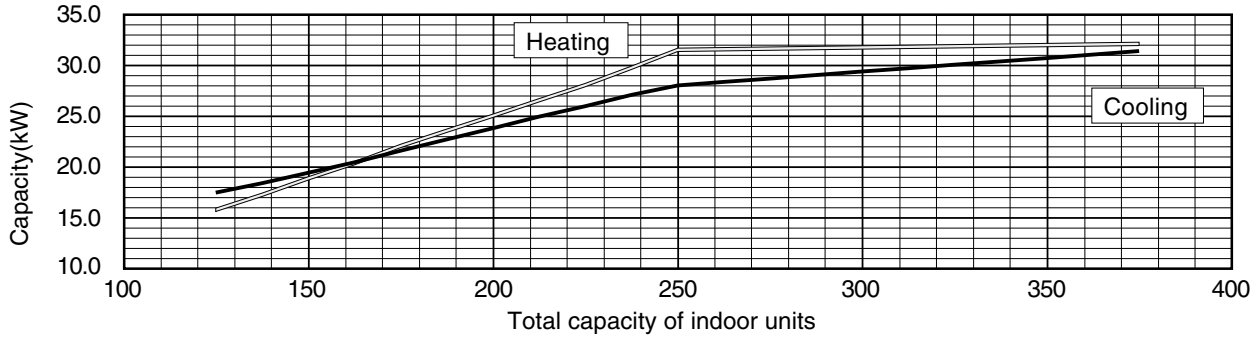


3) Current

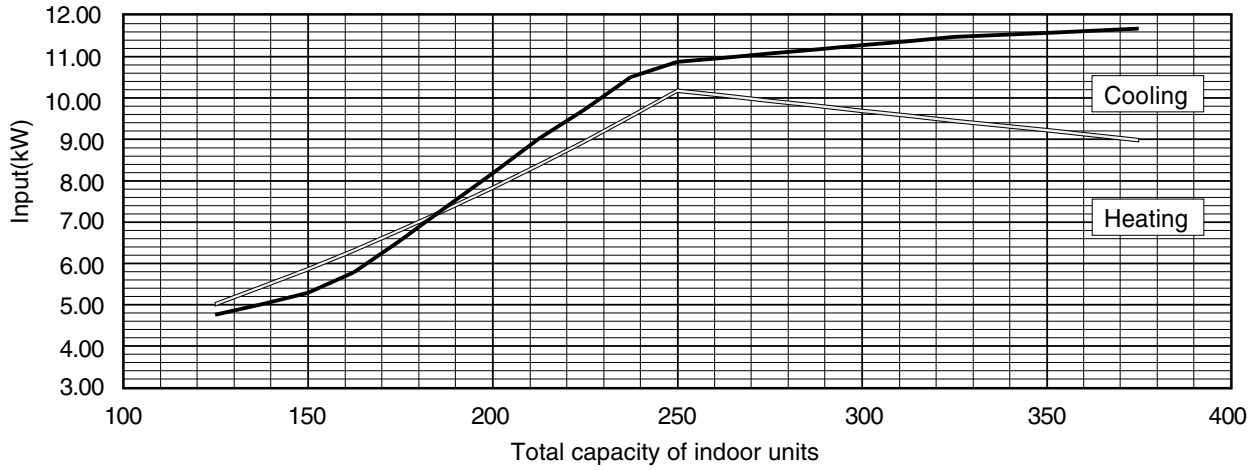


PURY-250YMF-C

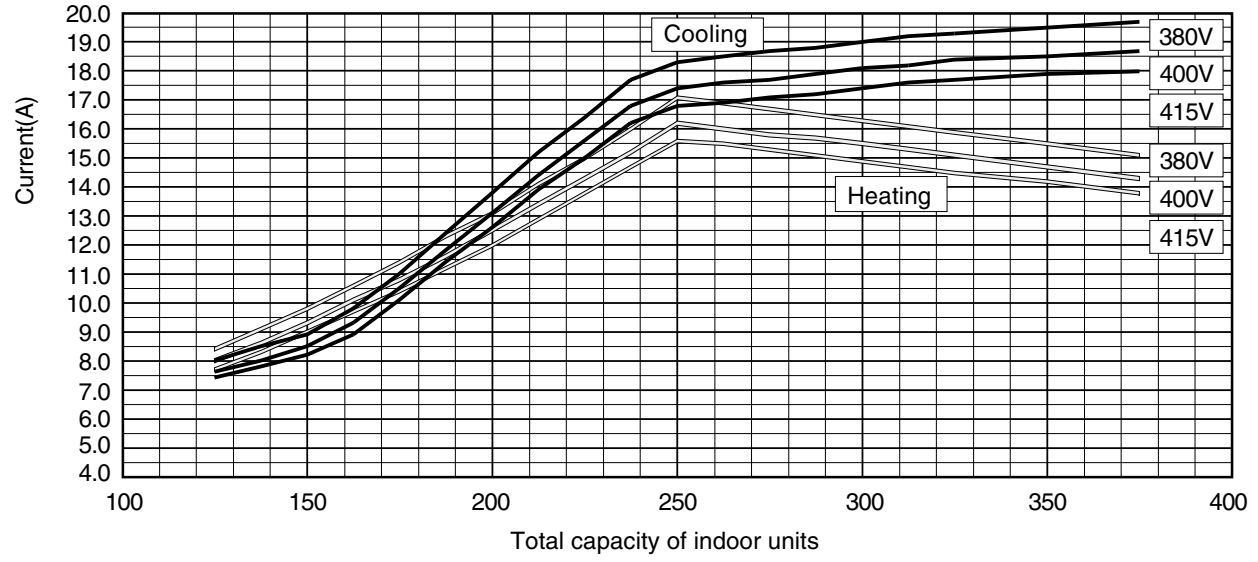
1) Capacity



2) Input



3) Current

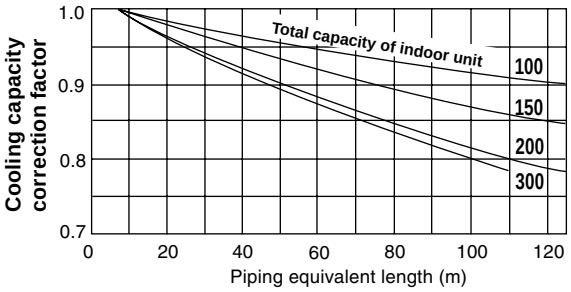


2-3 Correction by refrigerant piping length

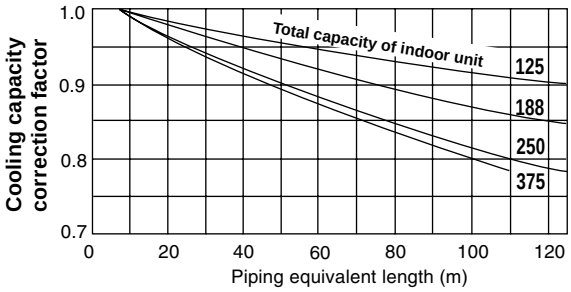
To obtain a decrease in cooling/heating capacity due to refrigerant piping extension, multiply by the capacity correction factor based on the refrigerant piping equivalent length in the table below.

• Cooling capacity correction

PURY-200YMF-C

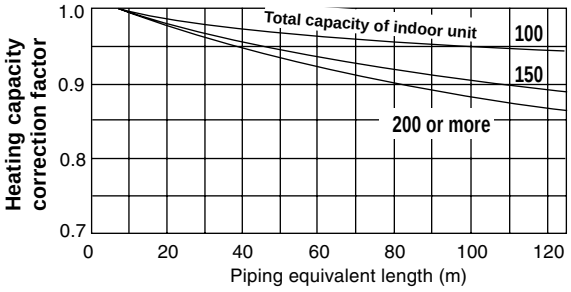


PURY-250YMF-C

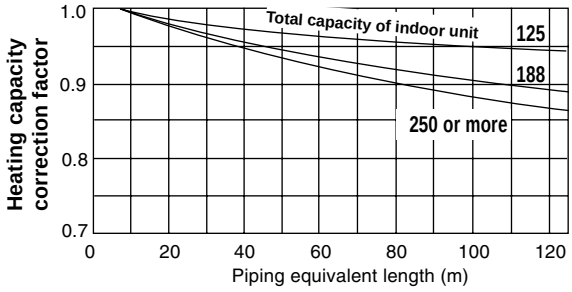


• Heating capacity correction

PURY-200YMF-C



PURY-250YMF-C



• How to obtain piping equivalent length

① **PURY-200YMF-C**

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.47 × number of bent on the piping)m

② **PURY-250YMF-C**

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 × number of bent on the piping)m

2-4 Correction at frosting and defrosting

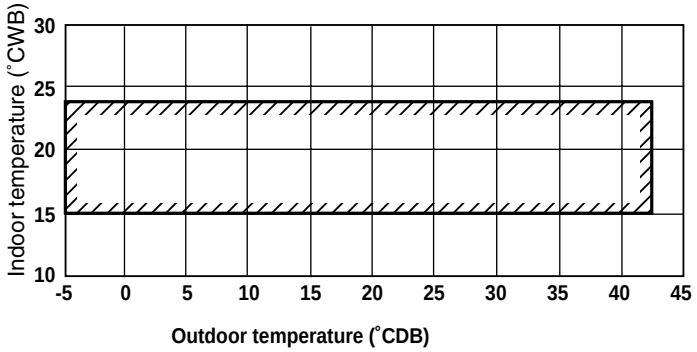
When a decrease in heating capacity due to frosted and defrosting operations is considered, the value multiplied by the correction factor in the table below represents the heating capacity.

Correction factor table

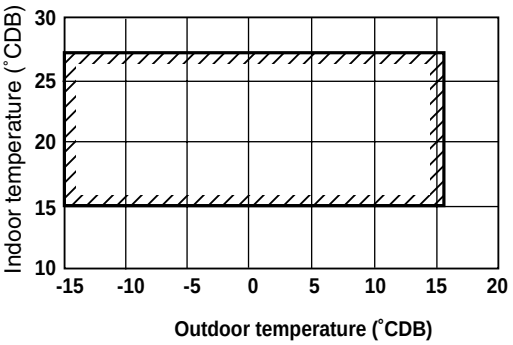
Outdoor inlet air temp (˚CWB)	6	4	2	0	-2	-4	-6	-8	-10
Correction factor	1.0	0.95	0.84	0.83	0.87	0.9	0.95	0.95	0.95

2-5 Operation limit

• **Cooling**



• **Heating**



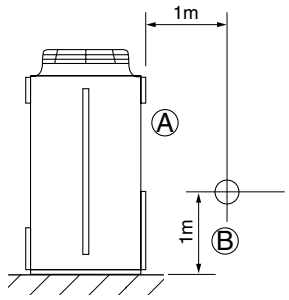
※ **Outdoor temperature : -5˚CDB/-6˚CWB ~ 21˚CDB/15.5˚CWB in cooling/heating mixed mode.**

3. Sound levels

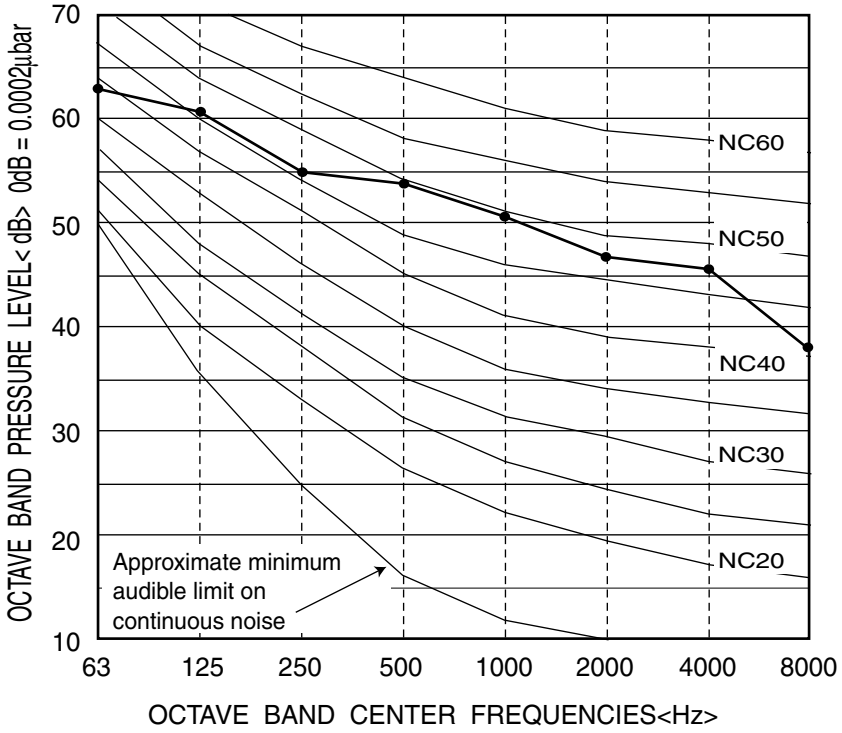
R2(R22)

PURY-200YMF-C

Measurement condition

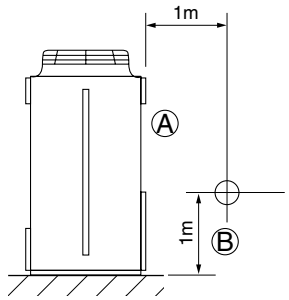


Sound pressure level in anechoic room
56 dB (A)

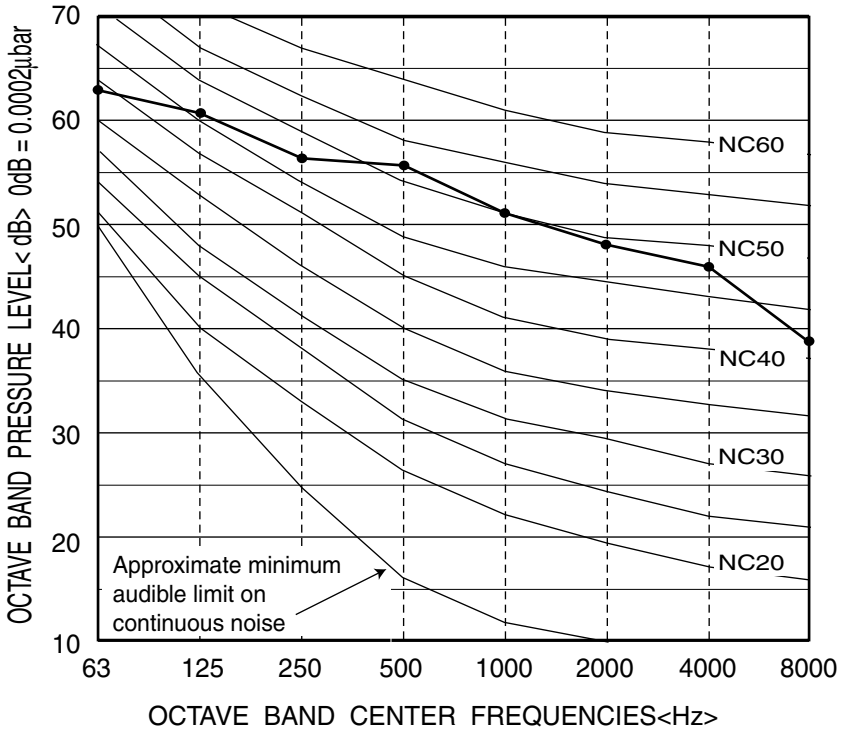


PURY-250YMF-C

Measurement condition



Sound pressure level in anechoic room
57 dB (A)



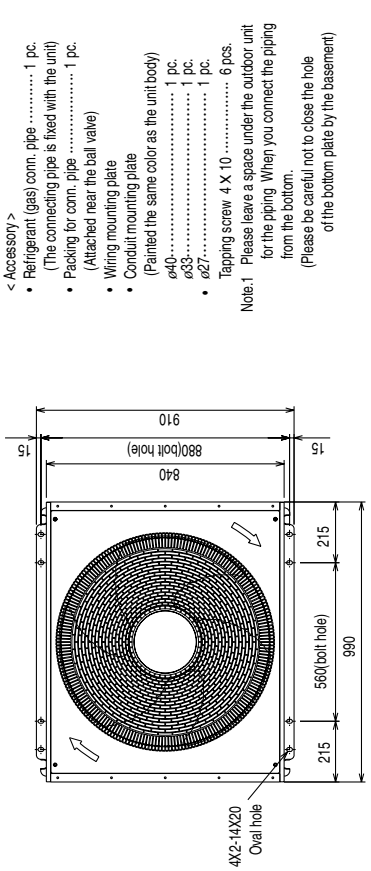
4. External dimensions

PURY-200,250YMF-C

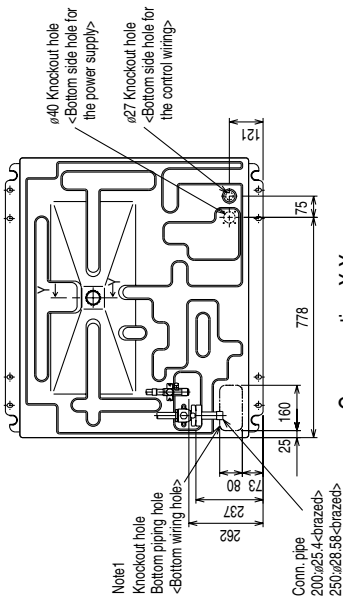
Unit : mm

< Accessory >
- Refrigerant (gas) conn. pipe ····· 1 pc.
  (The connecting pipe is fixed with the unit)
- Packing for conn. pipe ····· 1 pc.
  (Attached near the ball valve)
- Wiring mounting plate
- Conduit mounting plate
  (Painted the same color as the unit body)
  ø40····· 1 pc.
  ø33····· 1 pc.
  ø27····· 1 pc.
- Tapping screw 4 X 10 ····· 6 pcs.

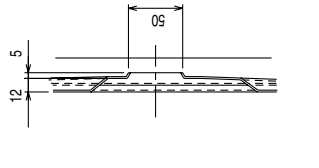
Note.1 Please leave a space under the outdoor unit for the piping. When you connect the piping from the bottom.
(Please be careful not to close the hole of the bottom plate by the basement)



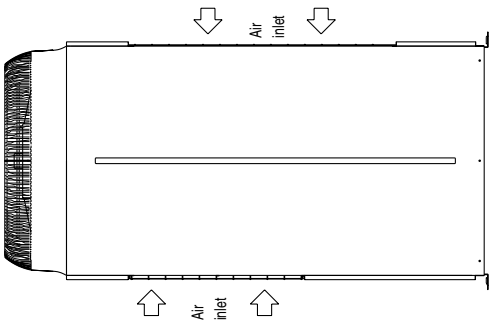
Plane view



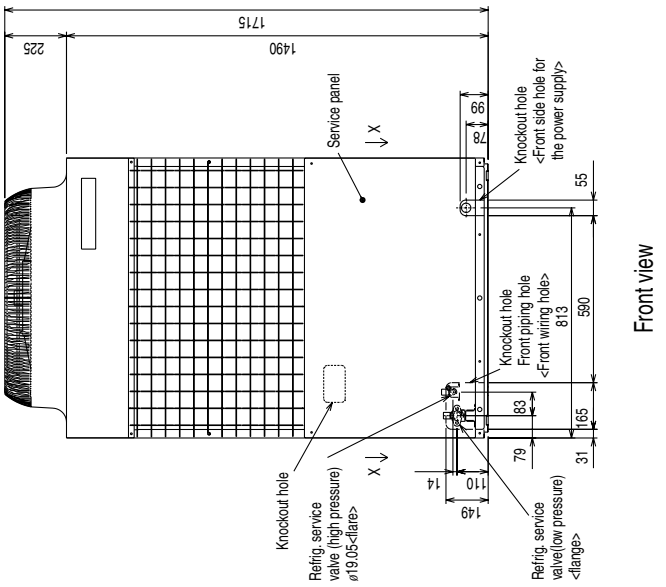
Cross section X-X



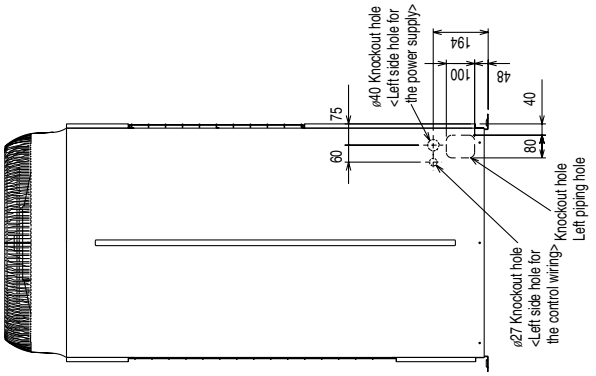
Crosss section Y-Y



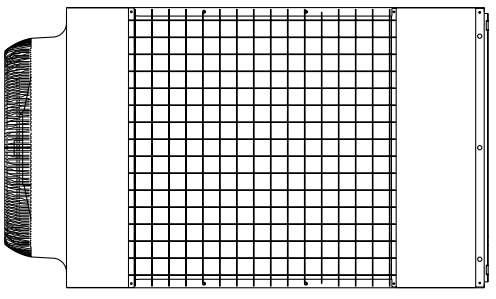
Right side view



Front view



Left side view

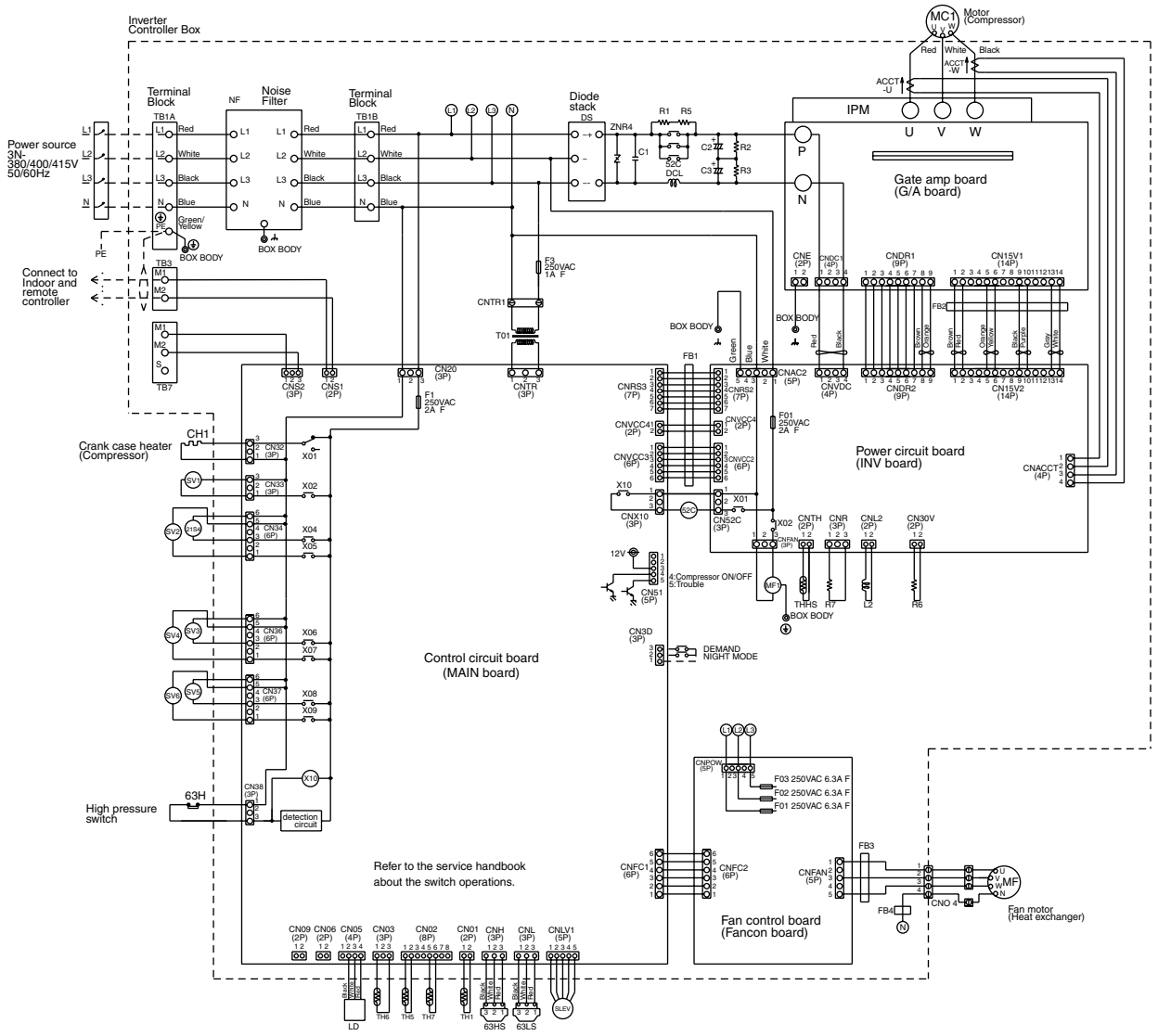


Rear view

5. Electrical Wiring Diagram

R2(R22)

PURY-200, 250YMF-C

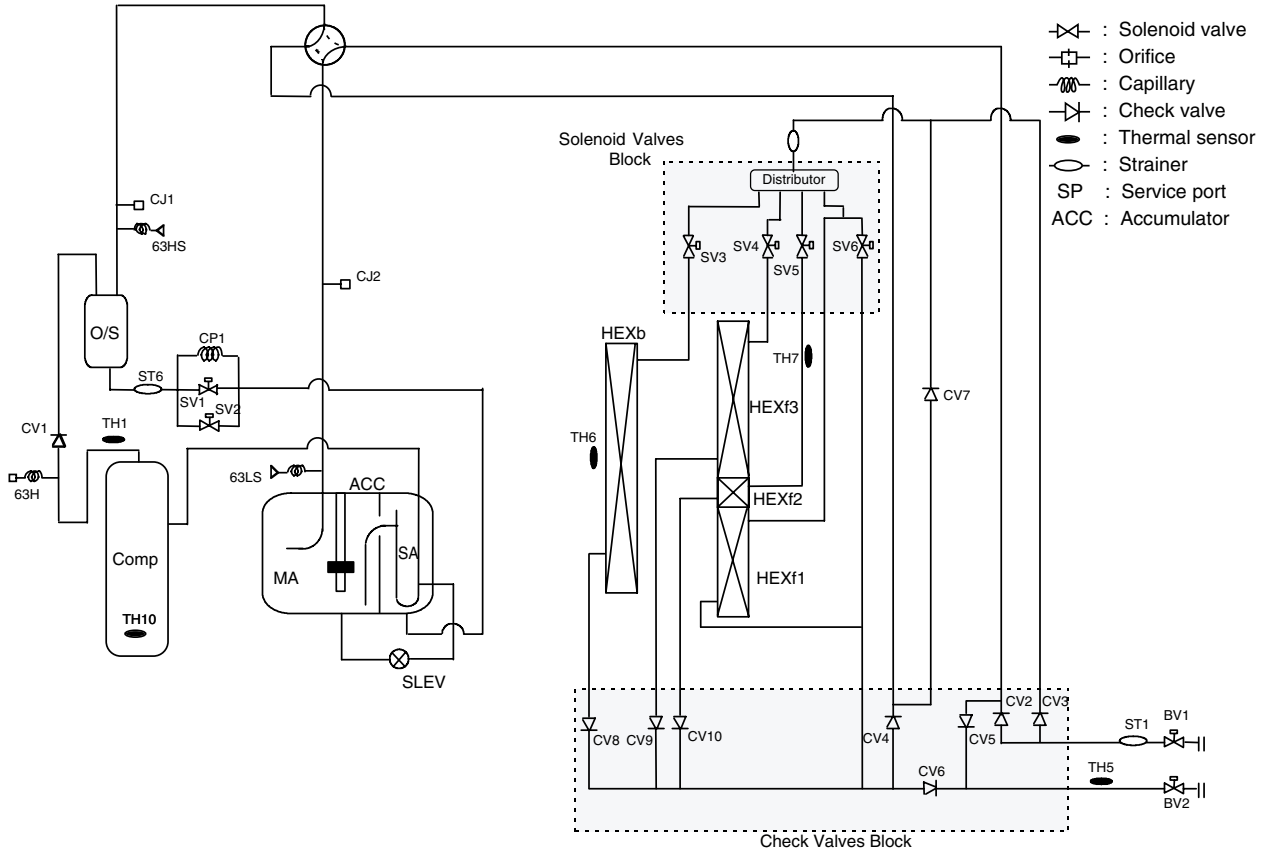


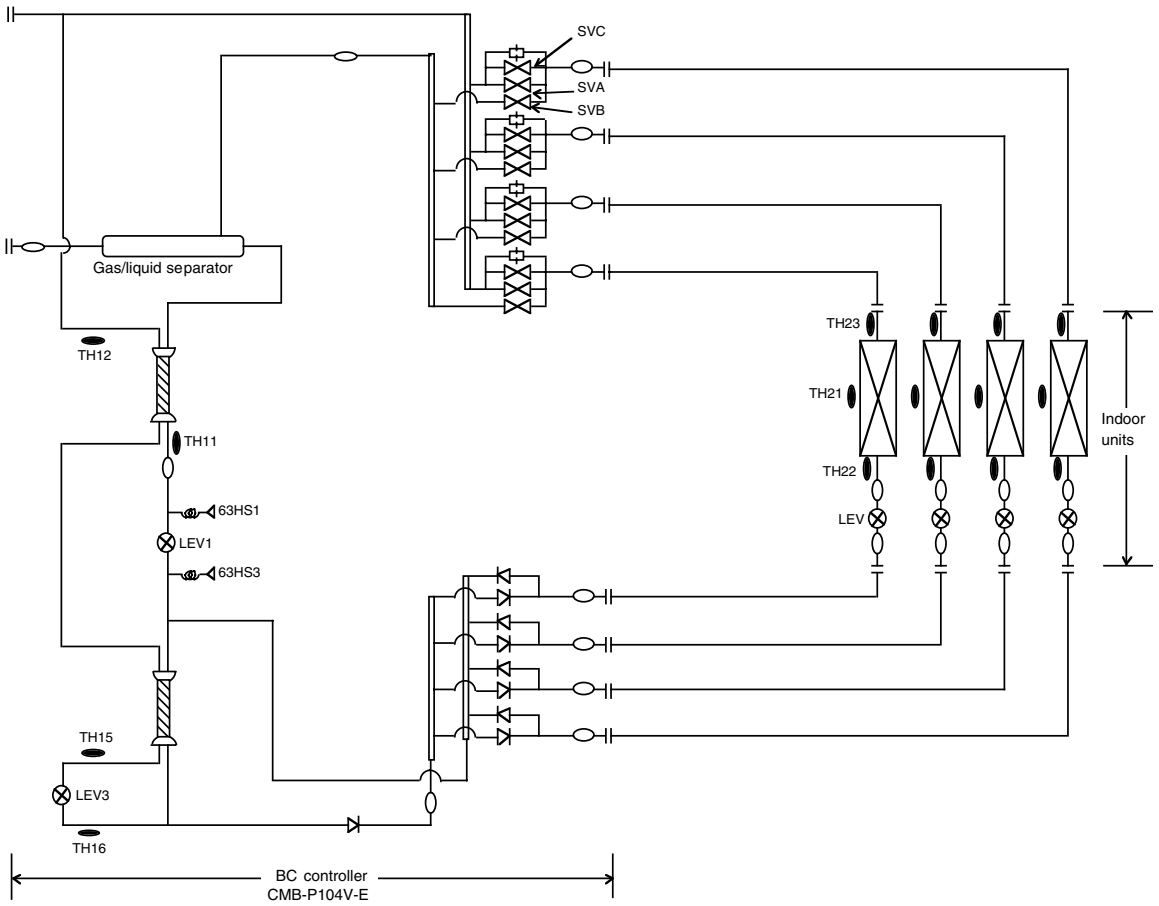
<SYMBOL EXPLANATION>

Symbol	Name	Symbol	Name	Symbol	Name	Symbol	Name
DCL	DC reactor (Power factor improvement)	21S4	4-way valve	L2	Choke coil(Transmission)	THHS	Thermistor: Radiator panel temp. detect
		SV1,SV2	Solenoid valve (Discharge-suction bypass)	IPM	Intelligent power module	LD	Accumlator liquid level detect
ACCT-U,W	Current Sensor	SV3~SV6	Solenoid valve (Heat exchanger capacity control)	TH1	Thermistor: Discharge pipe temp. detect	X1~10	Aux. relay
ZNR4	Varistor			TH5	Pipe temp. detect	FB1~4	Ferrite core
52C	Magnetic contactor (Inverter main circuit)	SLEV	Electronic expansion valve(Oil return)	TH6	OA temp. detect	⏚	Earth terminal
		63HS	High pressure sensor	TH7	liquid outlet temp. detect at Sub-cool coil		
MF1	Fan motor (Radiator panel)	63LS	Low pressure sensor				

6. Refrigerant circuit diagram and Thermal sensor

PURY-200, 250YMF-C





PUY-200YMF-C, PUY-250YMF-C

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1. Specifications

C/O(R22)

Model name				PUY-200YMF-C
				Cooling
Capacity		kW	∗1	22.4
		kcal/h	∗2	20,000
Power source				3N ~ 380/400/415V 50/60Hz
Power input		kW		8.64
Current		A		14.5/13.8/13.3
Fan	Type × Quantity			Propeller fan × 1
	Airflow rate	m^3/min		185
	Motor output	kW		0.38
Compressor	Type			Hermetic
	Motor output	kW		5.5
	Crankcase heater	kW		0.062(240V)
Refrigerant / Lubricant				R22/MS32(N-1)
External finish				Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>
External dimension		mm		1715(H)×990(W)×840(L)
Protection devices	High pressure protection			2.94MPa
	Compressor / Fan			Over current protection / Thermal switch
	Inverter			DC bus current protection, thermal switch
Refrigerant piping diameter	Liquid / Gas			ø12.7 flare /ø25.4 Flange
Indoor unit	Total capacity			50 ~ 130% of outdoor unit capacity
	Model / Quantity			Model 20 ~ 250 / 1 ~ 13
Noise level		dB<A>		56
Net weight		kg		218
Operating temperature range				Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (10˚CDB ~ 43˚CDB with outdoor unit at lower position)

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

∗1 **Cooling** Indoor : 27˚CDB/19˚CWB Outdoor : 35˚CDB Pipe length : 7.5m Height difference : 0m

∗2 **Cooling** Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB Pipe length : 5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

Model name				PUY-250YMF-C
				Cooling
Capacity		kW	∗1	28.0
		kcal/h	∗2	25,000
Power source				3N ~ 380/400/415V 50/60Hz
Power input		kW		10.89
Current		A		18.3/17.4/16.8
Fan	Type × Quantity			Propeller fan × 1
	Airflow rate	m^3/min		185
	Motor output	kW		0.38
Compressor	Type			Hermetic
	Motor output	kW		7.5
	Crankcase heater	kW		0.062(240V)
Refrigerant / Lubricant				R22/MS32(N-1)
External finish				Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>
External dimension		mm		1715(H)×990(W)×840(L)
Protection devices	High pressure protection			2.94MPa
	Compressor / Fan			Over current protection / Thermal switch
	Inverter			DC bus current protection, thermal switch
Refrigerant piping diameter	Liquid / Gas			ø12.7 flare /ø28.58 Flange
Indoor unit	Total capacity			50 ~ 130% of outdoor unit capacity
	Model / Quantity			Model 20 ~ 250 / ~ 16
Noise level		dB<A>		57
Net weight		kg		220
Operating temperature range				Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (10˚CDB ~ 43˚CDB with outdoor unit at lower position)

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

∗1 **Cooling** Indoor : 27˚CDB/19˚CWB Outdoor : 35˚CDB Pipe length : 7.5m Height difference : 0m

∗2 **Cooling** Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB Pipe length : 5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

2. Capacity table

2-1. Correction by temperature

Cooling

• Standard Specifications

		PUY-200YMF-C	PUY-250YMF-C
Capacity	kW	22.4	28.0
Input	kW	8.64	10.89
Source	V	380/400/415	
Current	A	14.5/13.8/13.3	18.3/17.4/16.8

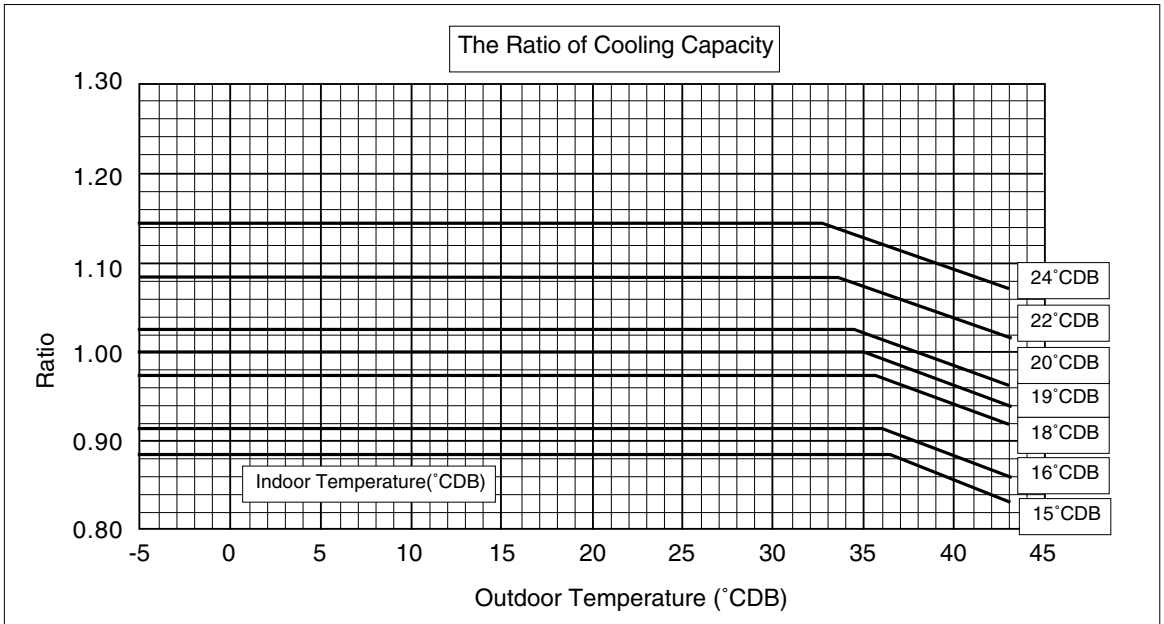
• Calculation

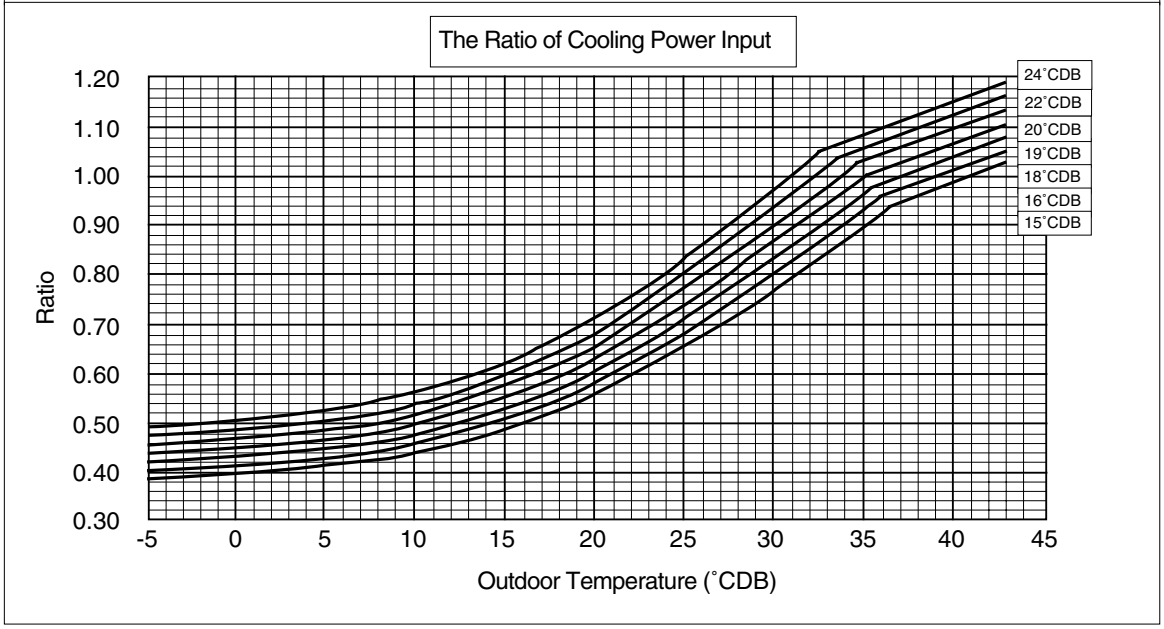
$$\text{Capacity}' = \text{Capacity} \times \text{Ratio}$$

$$\text{Input}' = \text{Input} \times \text{Ratio}$$

$$\text{Current}' = \frac{\text{Input}' \times 1000}{\sqrt{3} \times \text{Source} \times 0.90}$$

※ Capacity', Input', Current' } After correction

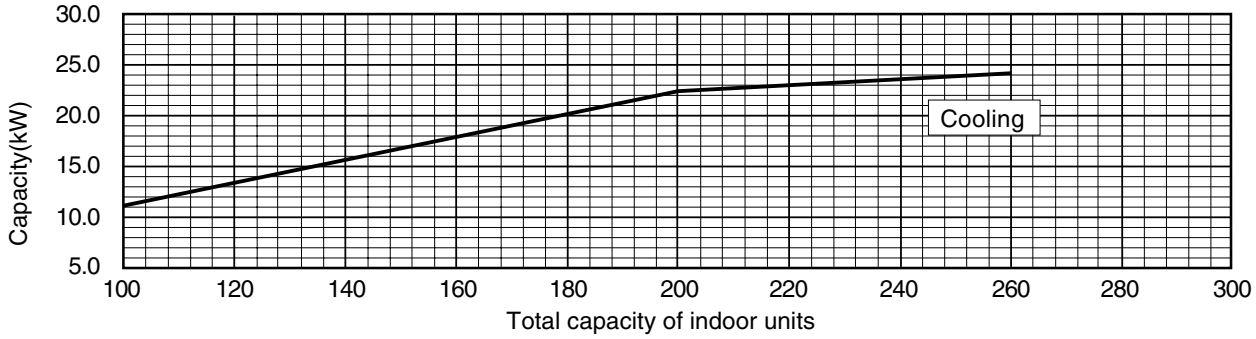




2-2. Correction by total indoor

PUY-200YMF-C

1) Capacity



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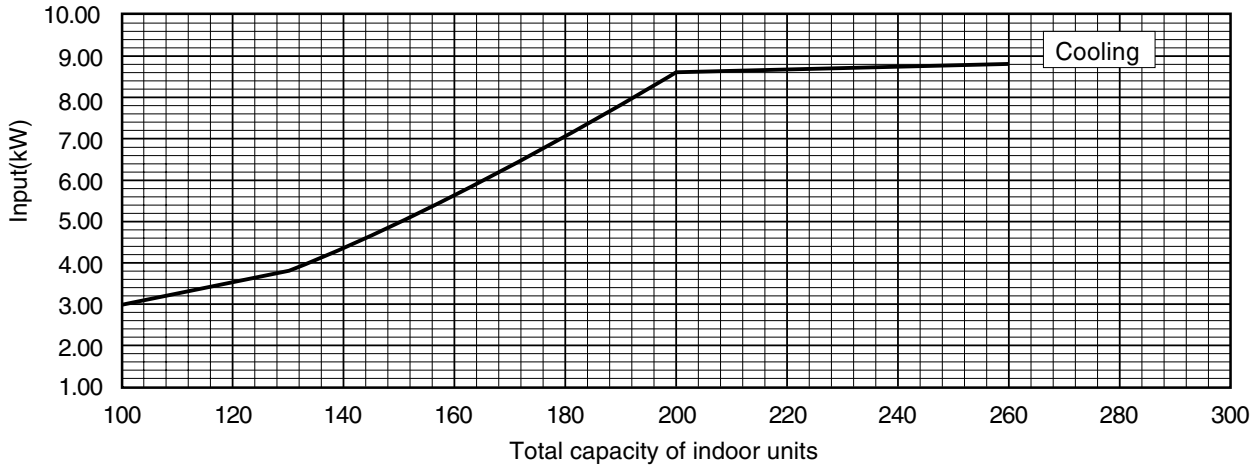
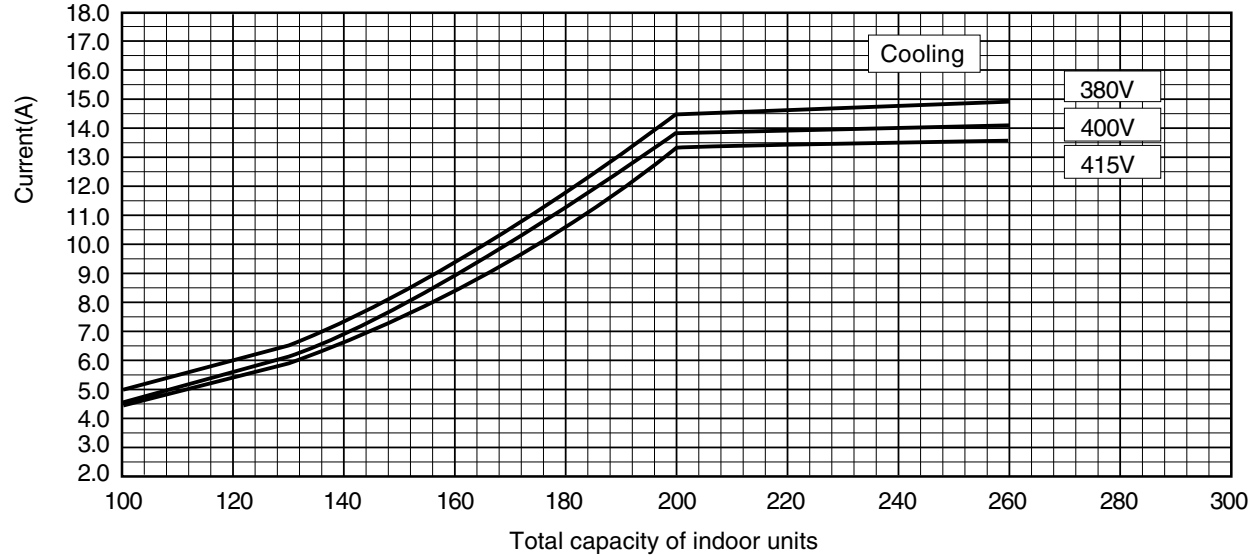
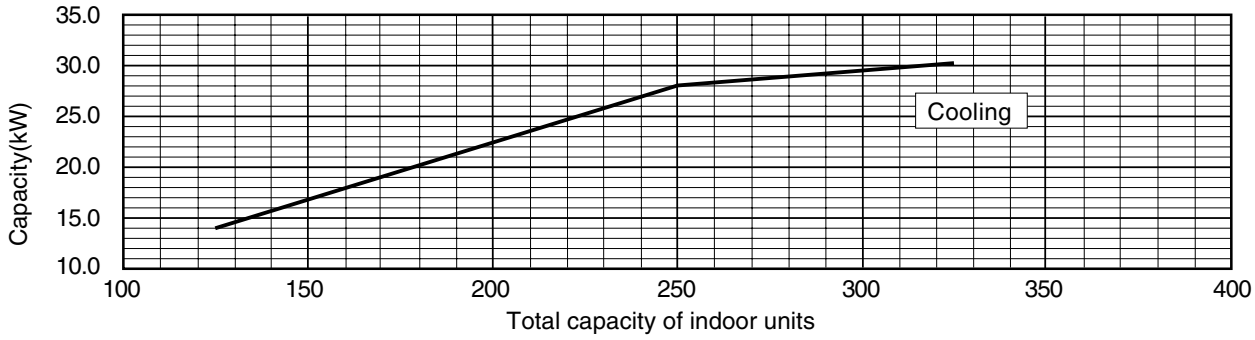


3) Current



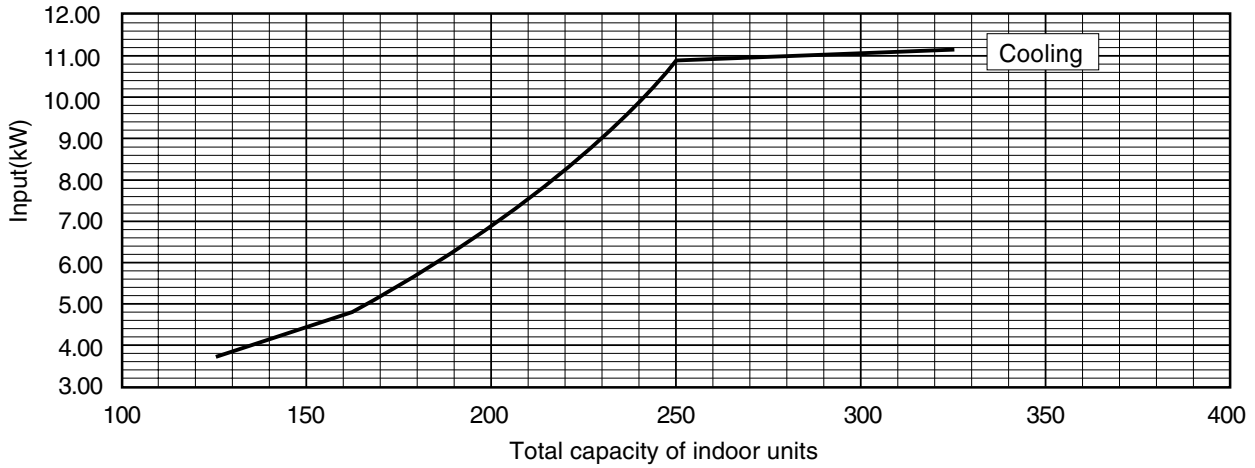
PUY-250YMF-C

1) Capacity

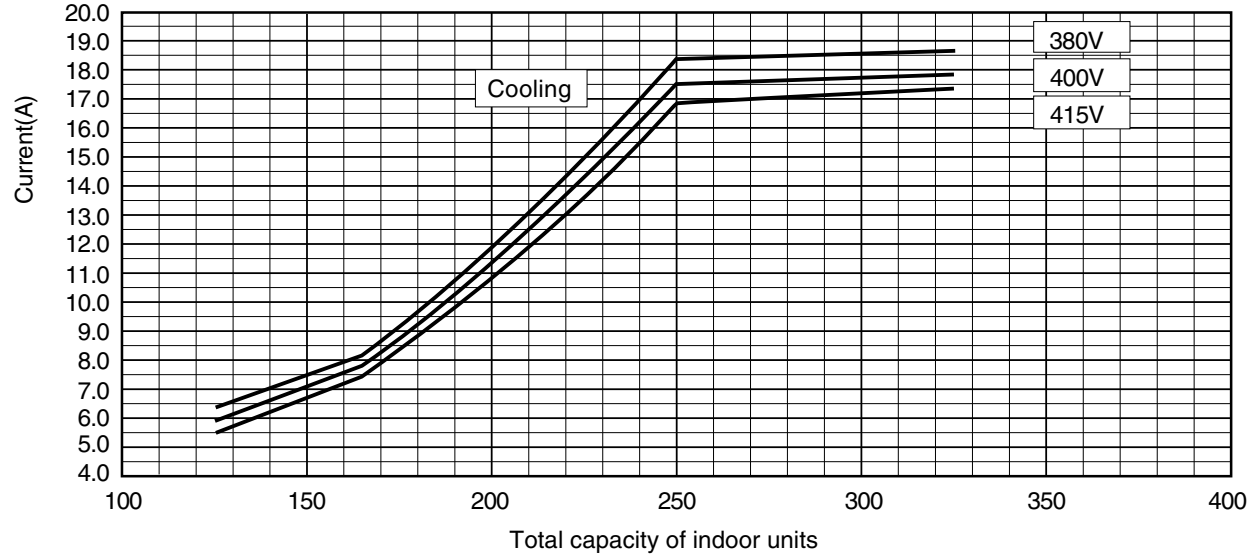


C/O(R22)

2) Input



3) Current

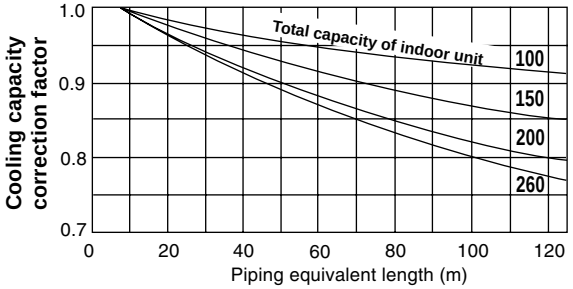


2-3 Correction by refrigerant piping length

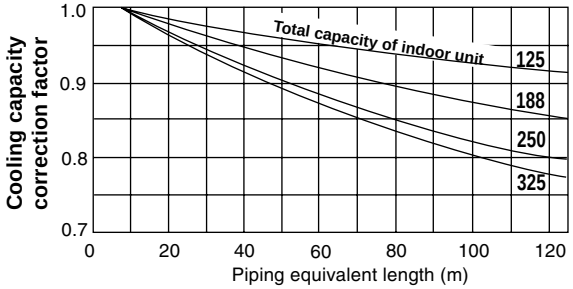
To obtain a decrease in cooling capacity due to refrigerant piping extension, multiply by the capacity correction factor based on the refrigerant piping equivalent length in the table below.

• Cooling capacity correction

PUY-200YMF-C



PUY-250YMF-C



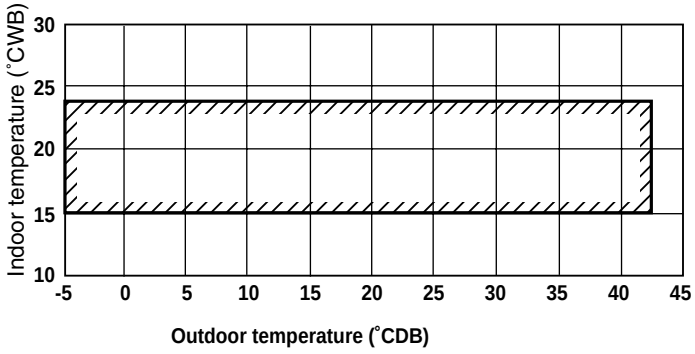
• How to obtain piping equivalent length

① **PUY-200YMF-C**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.47 × number of bent on the piping)m

② **PUY-250YMF-C**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 × number of bent on the piping)m

2-4 Operation limit

• Cooling

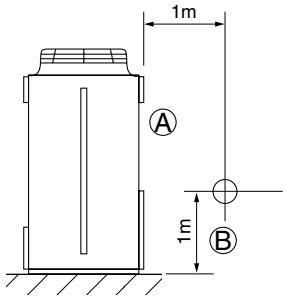


(Outdoor temperature :10˚CDB~ 43˚CDB with outdoor unit at lower position in cooling mode.)

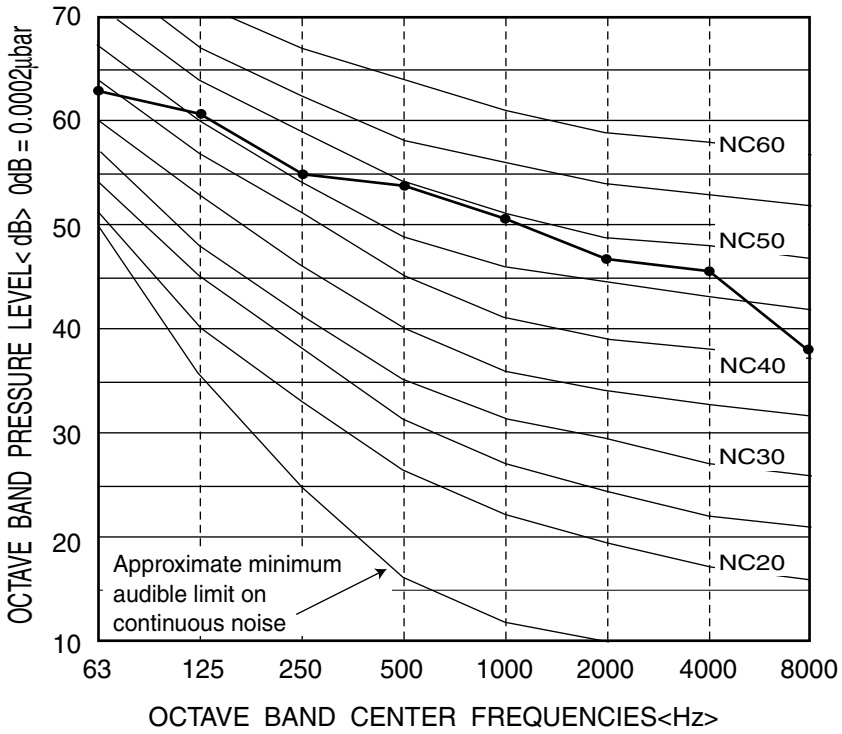
3. Sound levels

PUY-200YMF-C

Measurement condition

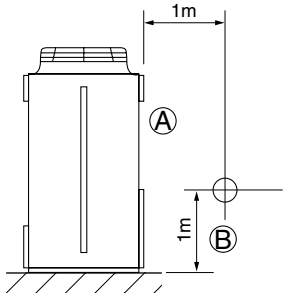


Sound pressure level in anechoic room
56 dB (A)

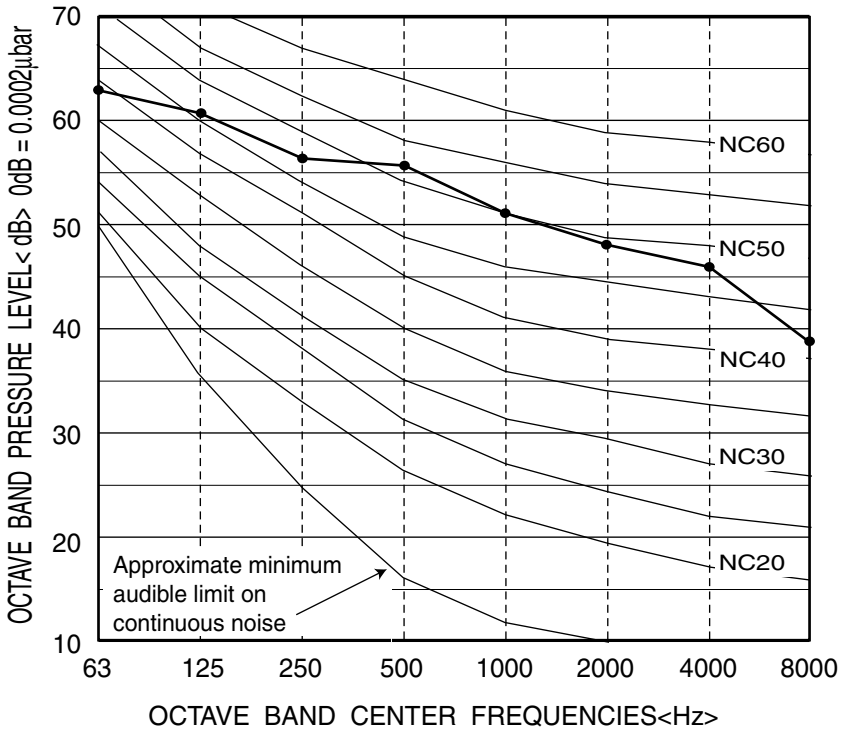


PUY-250YMF-C

Measurement condition



Sound pressure level in anechoic room
57 dB (A)

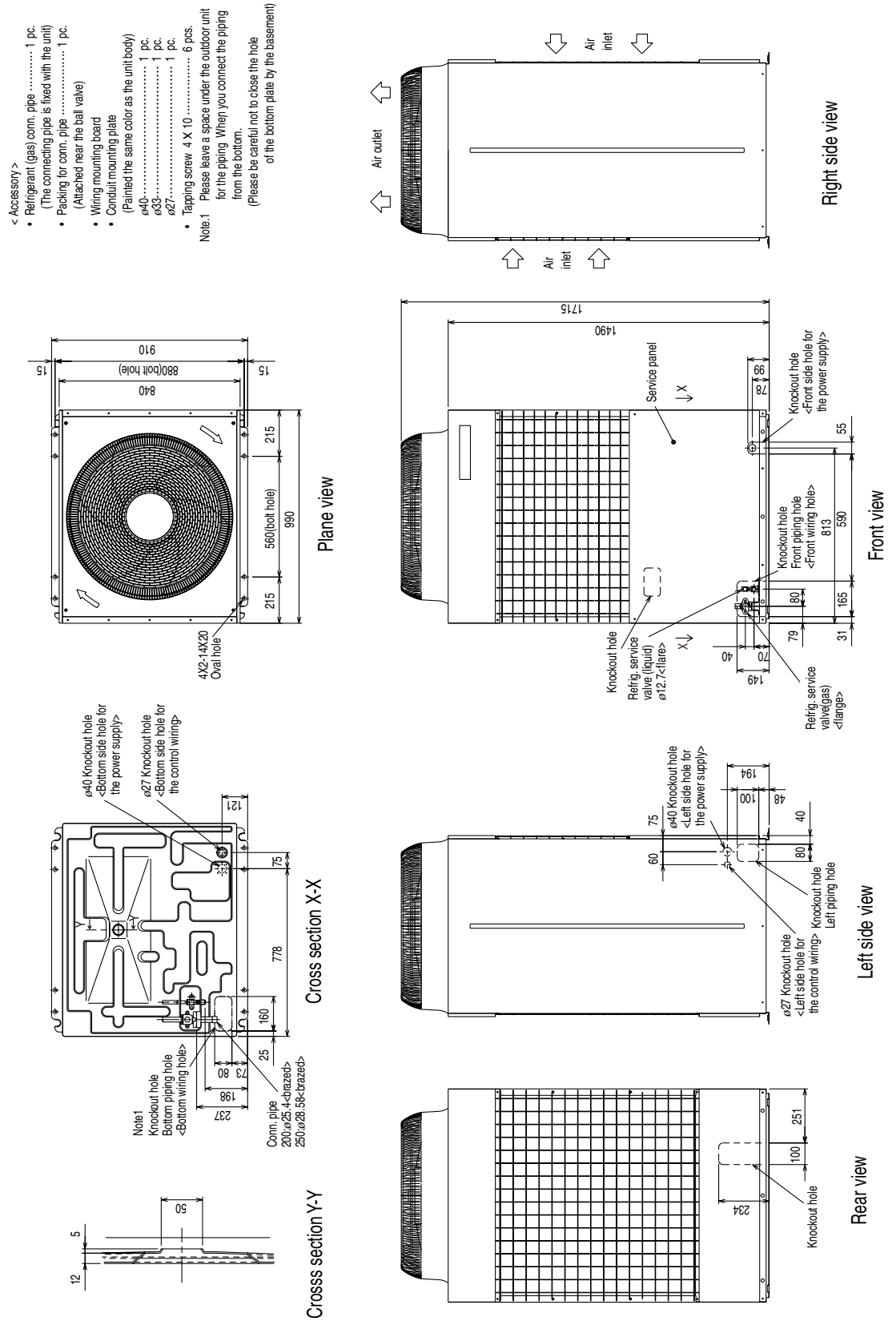


C/O(R22)

4. External dimensions

PUY-200,250YMF-C

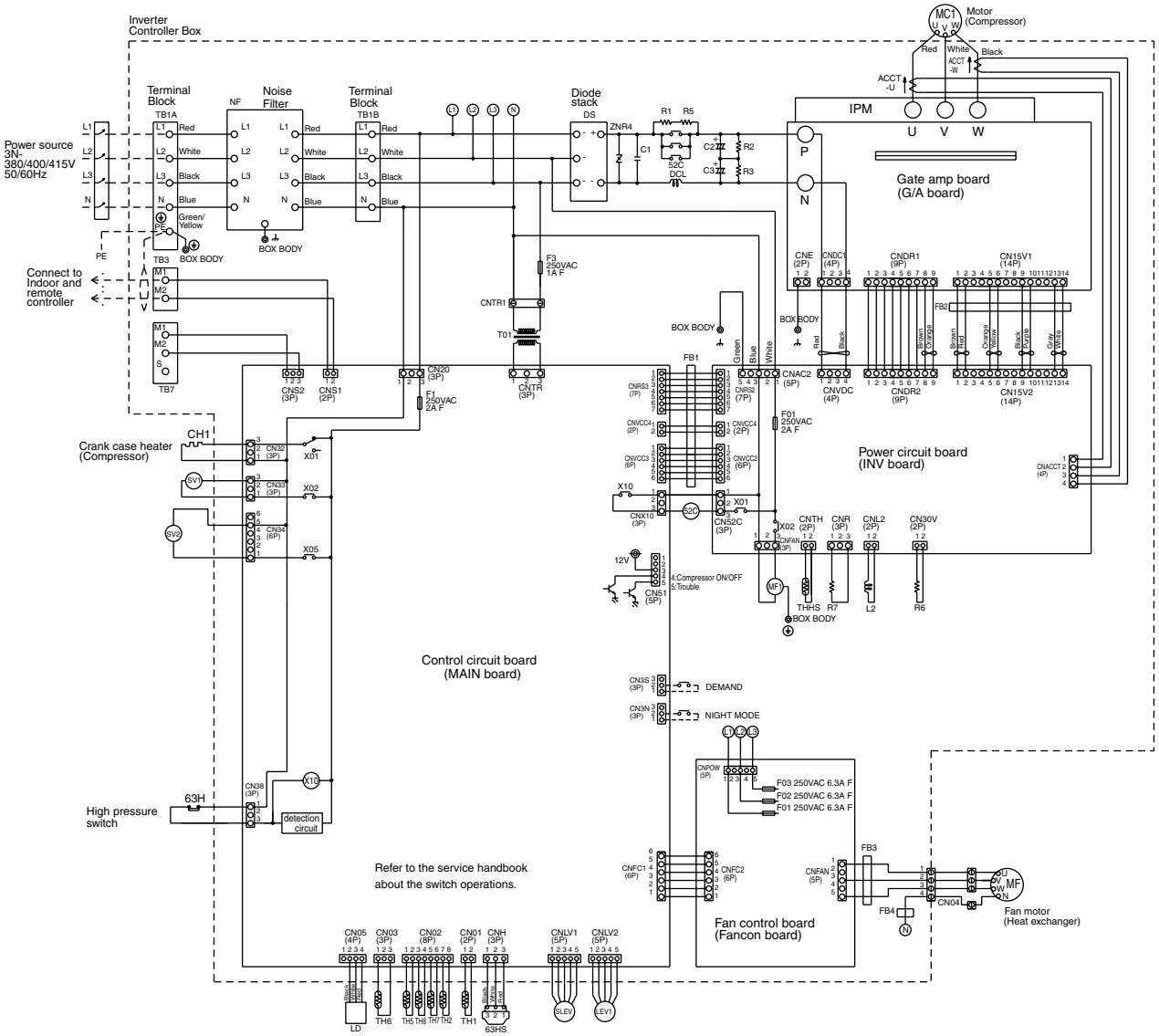
Unit : mm



C/O(R22)

5. Electrical Wiring Diagram

PUY-200, 250YMF-C

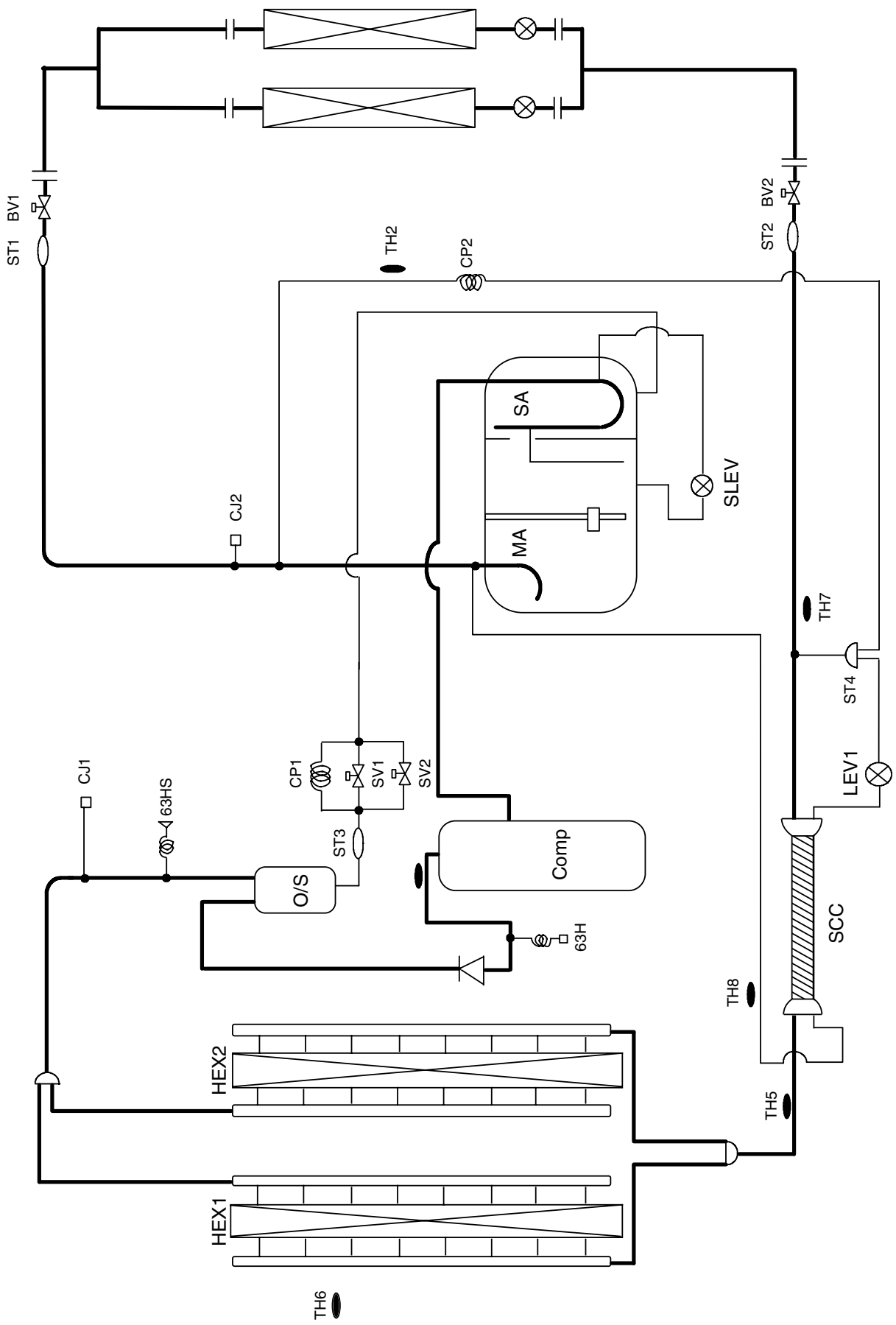


<SYMBOL EXPLANATION>

Symbol	Name	Symbol	Name	Symbol	Name		Symbol	Name
DCL	DC reactor (Power factor improvement)	LEV1	Electronic expansion valve (Sub-cool coil bypass)	TH2	Thermistor	Saturation evapo. temp. detect	THHS	Radiator panel temp. detect
ACCT-U,W	Current Sensor			TH5		Pipe temp. detect	X1~10	Aux. relay
ZNR4	Varistor	SLEV	Electronic expansion valve(Oil return)	TH6		OA temp. detect	FB1~4	Ferrite core
52C	Magnetic contactor (Inverter main circuit)	63HS	High pressure sensor	TH7		liquid outlet temp. detect at Sub-cool coil	⏚	Earth terminal
MF1	Fan motor (Radiator panel)	L2	Choke coil(Transmission)					
SV1,SV2	Solenoid valve (Discharge-suction bypass)	IPM	Intelligent power module	TH8		bypass outlet temp. detect at Sub-cool coil		
		TH1	Thermistor Discharge pipe temp. detect					

6. Refrigerant circuit diagram and Thermal sensor

PUY-200, 250YMF-C



C/O(R22)

C/O(R22)

CITY MULTI INDOOR UNIT

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Floor standing	Exposed	PFFY-P-VLEM-A	281
	Concealed	PFFY-P-VLRM-A	281
Cassette ceiling	1-way flow	PMFY-P-VBM-A	295
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BC controller (with PURY, PQRY)		CMB-P-V-E	383

Introduction

CITY MULTI INDOOR UNITS

Type	Model Name	20	25	32	40	50	63	71	80	100	125	140	200	250
Ceiling concealed	PEFY-P-VML-A	●	●	●										
	PEFY-PVMH-A				●	●	●	●	●	●	●	●	●	●
	PEFY-P-VMM-A	●	●	●	●	●	●	●	●	●	●	●		
Ceiling mounted built-in	PDFY-P-VM-A	●	●	●	●	●	●	●	●	●	●			
Floor standing (Exposed)	PFFY-PVLEM-A	●	●	●	●	●	●							
Floor standing (Concealed)	PFFY-PVLRM-A	●	●	●	●	●	●							
Cassette ceiling (1-way flow)	PMFY-P-VBM-A	●	●	●	●									
Cassette ceiling (2-way flow)	PLFY-P-VLMD-A	●	●	●	●	●	●		●	●	●			
Cassette ceiling (4-way flow)	PLFY-P-VKM-A			●	●	●	●							
	PLFY-P-VAM-A								●	●	●			
Wall mounted	PKFY-P-VAM-A	●	●											
	PKFY-P-VGM-A			●	●	●								
Ceiling suspended	PCFY-P-VGM-A				●		●			●	●			

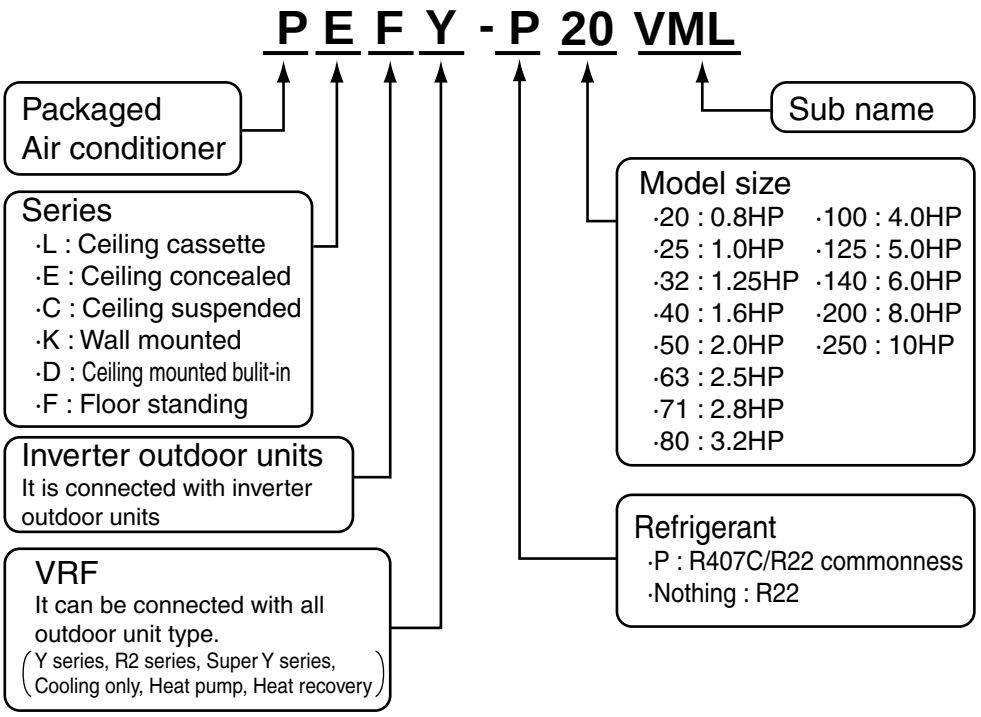
LOSSNAY UNITS

Model Name	20	35	50	80	100	150	200
LGH-RS2	●	●	●	●	●	●	●

BC controllers

Model Name	104	105	106	108	1010	1013	1016
CMB-P-V-E	●	●	●	●	●	●	●

Meaning of model name



Ceiling concealed

PEFY-P-VML-A
PEFY-P-VMH-A

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1. Specifications

				PEFY-P20VML-A	PEFY-P25VML-A	PEFY-P32VML-A
Power source				~220-240V 50Hz / 60Hz		
Cooling capacity	※1		kW	2.2	2.8	3.6
	※2		kcal/h	2,000	2,500	3,150
Heating capacity	※1		kW	2.5	3.2	4.0
Power consumption (50/60Hz)		Cooling	kW	0.05/0.06		0.07/0.09
		Heating	kW	0.05/0.06		0.07/0.09
Current		Cooling	A	0.24/0.28		0.32/0.42
		Heating	A	0.24/0.28		0.32/0.42
External finish				Galvanized steel plate		
Dimension		Height	mm	225		
		Width	mm	720		
		Depth	mm	550		
Net weight			kg	18		
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)		
Fan	Type			Sirocco fan× 1		
	Airflow rate (Lo-Mid-Hi)		m^3/min	5.4-6.5-7.9		6.0-7.5-9.5
	External static pressure		Pa	5		
Motor	Type			Single phase induction motor		
	Output		kW	0.023		0.032
Air filter				PP Honeycomb fabric (washable)		
Refrigerant pipe dimension		Gas (Brazing)	mm	ø 12.7		
		Liquid (Brazing)	mm	ø 6.35		
Drain pipe dimension				R1 (External thread)		
Noise level (Lo-Mid-Hi)			dB(A)	29-33-36		30-35-40

				PEFY-P40VMH-A	PEFY-P50VMH-A	PEFY-P63VMH-A	PEFY-P71VMH-A
Power source				~ 220-240V 50Hz /60Hz			
Cooling capacity	※1		kW	4.5	5.6	7.1	8.0
	※2		kcal/h	4,000	5,000	6,300	7,100
Heating capacity	※1		kW	5.0	6.3	8.0	9.0
Power consumption (50/60Hz)		Cooling	kW	0.19/0.23		0.24/0.30	0.26/0.33
		Heating	kW	0.19/0.23		0.24/0.30	0.26/0.33
Current		Cooling	A	0.88/1.06		1.12/1.38	1.20/1.51
		Heating	A	0.88/1.06		1.12/1.38	1.20/1.51
External finish				Galvanizing			
Dimension		Height	mm	380			
		Width	mm	750			1000
		Depth	mm	900			
Net weight			kg	44	45		50
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)			
Fan	Type			Sirocco fan× 1			
	Airflow rate (Lo-Hi)		m^3/min	10.0-14.0		13.5-19.0	15.5-22.0
	External static pressure ※3	220V	Pa	50/100/200			
		230, 240V	Pa	100/150/200			
Motor	Type			Single phase induction motor			
	Output ※4		kW	0.08		0.12	0.14
Air filter (option)				Synthethic fiber unwoven cloth filter(long life)			
Refrigerant pipe dimension		Gas (Flare)	mm	ø 12.7	ø 15.88		
		Liquid (Flare)	mm	ø 6.35	ø 9.52		
Drain pipe dimension				32 (1-1/4 inch)			
Noise level (Lo-Hi)		220V	dB(A)	27-34		32-38	32-39
		230, 240V	dB(A)	31-37		36-41	35-41

Note: ※1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19˚CWB,Outdoor 35˚CDB
Heating : Indoor 20˚CDB,Outdoor 7˚CDB/6˚CWB
※2 Cooling capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19.5˚CWB,Outdoor 35˚CDB (WR2: water 30˚C)
※3 The external static pressure is set to 100Pa (at 220V) /150Pa (at 230, 240V) at factory shipment.
※4 The value are that at 240V.

				PEFY-P80VMH-A	PEFY-P100VMH-A	PEFY-P125VMH-A	PEFY-P140VMH-A
Power source				~ 220-240V 50Hz /60Hz			
Cooling capacity	※1		kW	9.0	11.2	14.0	16.0
	※2		kcal/h	8,000	10,000	12,500	14,000
Heating capacity	※1		kW	10.0	12.5	16.0	18.0
Power consumption (50/60Hz)	Cooling		kW	0.32/0.40	0.48/0.58		0.48/0.59
	Heating		kW	0.32/0.40	0.48/0.58		0.48/0.59
Current	Cooling		A	1.47/1.83	2.34/2.66		2.35/2.70
	Heating		A	1.47/1.83	2.34/2.66		2.35/2.70
External finish				Galvanizing			
Dimension	Height		mm	380			
	Width		mm	1000	1200		
	Depth		mm	900			
Net weight			kg	50	70		
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)			
Fan	Type			Sirocco fan× 1	Sirocco fan× 2		
	Airflow rate (Lo-Hi)		m^3/min	18.0-25.0	26.5-38.0		28.0-40.0
	External static pressure ※3	220V	Pa	50/100/200			
		230, 240V	Pa	100/150/200			
Motor	Type			Single phase induction motor			
	Output ※4		kW	0.18	0.26		
Air filter (option)				Synthethic fiber unwoven cloth filter(long life)			
Refrigerant pipe dimension	Gas (Flare)		mm	ø 15.88	ø 19.05		
	Liquid (Flare)		mm	ø 9.52			
Drain pipe dimension				32 (1-1/4 inch)			
Noise level (Lo-Hi)	220V		dB(A)	35-41	34-42		
	230, 240V		dB(A)	38-43	38-44		

				PEFY-P200VMH-A	PEFY-P250VMH-A
Power source				3N ~ 380-415V 50Hz / 60Hz	
Cooling capacity	※1		kW	22.4	28.0
	※2		kcal/h	20,000	25,000
Heating capacity	※1		kW	25.0	31.5
Power consumption (50/60Hz)	Cooling		kW	0.99/1.14	1.23/1.41
	Heating		kW	0.99/1.14	1.23/1.41
Current	Cooling		A	1.62/1.86	2.0/2.3
	Heating		A	1.62/1.86	2.0/2.3
External finish				Galvanizing	
Dimension	Height		mm	470	
	Width		mm	1250	
	Depth		mm	1120	
Net weight			kg	100	
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)	
Fan	Type			Sirocco fan× 2	
	Airflow rate		m^3/min	58.0	72.0
	External static pressure ※5	380V	Pa	110/220	
		400, 415V	Pa	130/260	
Motor	Type			3-phase induction motor	
	Output ※6		kW	0.76	1.08
Air filter (option)				Synthethic fiber unwoven cloth filter(long life)	
Refrigerant pipe dimension	Gas (Brazing)		mm	ø 25.4	ø 28.58
	Liquid (Brazing)		mm	ø 12.7	
Drain pipe dimension				32 (1-1/4 inch)	
Noise level	380V		dB(A)	42(110Pa)/45(220Pa)	50(110Pa)/52(220Pa)
	400, 415V		dB(A)	44(130Pa)/47(260Pa)	52(130Pa)/54(260Pa)

Note: ※1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19˚CWB,Outdoor 35˚CDB
Heating : Indoor 20˚CDB,Outdoor 7˚CDB/6˚CWB
※2 Cooling capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19.5˚CWB,Outdoor 35˚CDB (WR2: water 30˚C)
※3 The external static pressure is set to 100Pa (at 220V) /150Pa (at 230, 240V) at factory shipment.
※4 The value are that at 240V.
※5 The external static pressure is set to 110Pa (at 380V) /130Pa (at 400, 415V) at factory shipment.
※6 The value are that at 415V.

2. Capacity tables

2-1.Cooling Capacity (In combination with PUMY-125YM(A))

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

PEFY-P-VML-A,VMH-A

Unit size	Outdoor air temp.	Indoor air temp.							
		23˚CDB 16˚CWB		25˚CDB 18˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20 (2.2)	20.0	2.2	1.8	2.3	1.9	2.4	1.9	2.6	2.0
	22.5	2.1	1.8	2.3	1.9	2.4	1.9	2.6	2.0
	25.0	2.1	1.8	2.3	1.9	2.4	1.9	2.5	2.0
	27.5	2.1	1.8	2.2	1.9	2.4	1.9	2.5	2.0
	30.0	2.1	1.8	2.2	1.9	2.3	1.9	2.5	1.9
	32.5	2.0	1.8	2.2	1.9	2.3	1.9	2.5	1.9
	35.0	2.0	1.8	2.1	1.9	2.3	1.8	2.4	1.9
	37.5	2.0	1.8	2.1	1.9	2.2	1.8	2.4	1.9
	40.0	2.0	1.7	2.1	1.8	2.2	1.8	2.4	1.9
	46.0	1.9	1.7	2.0	1.8	2.1	1.8	2.3	1.9
25 (2.8)	20.0	2.8	2.2	2.9	2.3	3.1	2.3	3.3	2.3
	22.5	2.7	2.2	2.9	2.3	3.1	2.2	3.2	2.3
	25.0	2.7	2.1	2.9	2.3	3.1	2.2	3.2	2.3
	27.5	2.7	2.1	2.8	2.2	3.0	2.2	3.2	2.3
	30.0	2.6	2.1	2.8	2.2	3.0	2.2	3.2	2.3
	32.5	2.6	2.1	2.8	2.2	2.9	2.2	3.1	2.3
	35.0	2.6	2.1	2.7	2.2	2.9	2.2	3.1	2.3
	37.5	2.5	2.1	2.7	2.2	2.9	2.2	3.0	2.2
	40.0	2.5	2.0	2.7	2.2	2.8	2.1	3.0	2.2
	46.0	2.4	2.0	2.6	2.1	2.7	2.1	2.9	2.2
32 (3.6)	20.0	3.6	2.7	3.7	2.8	4.0	2.8	4.2	2.9
	22.5	3.5	2.7	3.7	2.8	4.0	2.8	4.2	2.9
	25.0	3.5	2.7	3.7	2.8	3.9	2.8	4.1	2.9
	27.5	3.4	2.7	3.6	2.8	3.9	2.8	4.1	2.8
	30.0	3.4	2.6	3.6	2.8	3.8	2.7	4.1	2.8
	32.5	3.3	2.6	3.6	2.7	3.8	2.7	4.0	2.8
	35.0	3.3	2.6	3.5	2.7	3.7	2.7	4.0	2.8
	37.5	3.2	2.6	3.5	2.7	3.7	2.7	3.9	2.8
	40.0	3.2	2.5	3.4	2.7	3.6	2.7	3.9	2.7
	46.0	3.1	2.5	3.3	2.6	3.5	2.6	3.7	2.7
40 (4.5)	20.0	4.5	3.3	4.7	3.5	5.0	3.5	5.3	3.6
	22.5	4.4	3.3	4.6	3.5	5.0	3.4	5.2	3.5
	25.0	4.3	3.3	4.6	3.4	4.9	3.4	5.2	3.5
	27.5	4.3	3.3	4.6	3.4	4.9	3.4	5.1	3.5
	30.0	4.2	3.2	4.5	3.4	4.8	3.4	5.1	3.5
	32.5	4.2	3.2	4.4	3.4	4.7	3.3	5.0	3.5
	35.0	4.1	3.2	4.4	3.3	4.7	3.3	5.0	3.4
	37.5	4.1	3.1	4.3	3.3	4.6	3.3	4.9	3.4
	40.0	4.0	3.1	4.3	3.3	4.5	3.3	4.8	3.4
	46.0	3.8	3.0	4.1	3.2	4.3	3.2	4.6	3.3
50 (5.6)	20.0	5.5	3.9	5.8	4.1	6.2	4.1	6.6	4.2
	22.5	5.5	3.9	5.8	4.1	6.2	4.0	6.5	4.1
	25.0	5.4	3.9	5.7	4.0	6.1	4.0	6.4	4.1
	27.5	5.3	3.8	5.7	4.0	6.0	4.0	6.4	4.1
	30.0	5.3	3.8	5.6	4.0	5.9	3.9	6.3	4.1
	32.5	5.2	3.7	5.5	3.9	5.9	3.9	6.2	4.0
	35.0	5.1	3.7	5.5	3.9	5.8	3.9	6.2	4.0
	37.5	5.0	3.7	5.4	3.9	5.7	3.8	6.1	4.0
	40.0	5.0	3.6	5.3	3.8	5.6	3.8	6.0	3.9
	46.0	4.8	3.5	5.1	3.7	5.4	3.7	5.8	3.8
63 (7.1)	20.0	7.0	5.2	7.4	5.4	7.9	5.3	8.3	5.5
	22.5	6.9	5.1	7.3	5.3	7.8	5.3	8.2	5.4
	25.0	6.9	5.1	7.3	5.3	7.7	5.3	8.2	5.4
	27.5	6.8	5.0	7.2	5.3	7.7	5.2	8.1	5.4
	30.0	6.7	5.0	7.1	5.2	7.5	5.2	8.0	5.3
	32.5	6.6	4.9	7.0	5.2	7.5	5.1	7.9	5.3
	35.0	6.5	4.9	6.9	5.1	7.3	5.1	7.8	5.3
	37.5	6.4	4.8	6.8	5.1	7.2	5.0	7.7	5.2
	40.0	6.3	4.8	6.7	5.1	7.2	5.0	7.6	5.2
	46.0	6.1	4.7	6.5	4.9	6.9	4.9	7.3	5.1

Cooling Capacity (In combination with PUMY-125YM(A))

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

PEFY-P-VML-A,VMH-A

Unit size	Outdoor air temp.	Indoor air temp.							
		23˚CDB 16˚CWB		25˚CDB 18˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC
71 (8.0)	20.0	7.9	5.8	8.3	6.0	8.9	6.0	9.4	6.1
	22.5	7.8	5.7	8.2	6.0	8.8	5.9	9.3	6.1
	25.0	7.7	5.7	8.2	5.9	8.7	5.9	9.2	6.1
	27.5	7.6	5.6	8.1	5.9	8.6	5.8	9.1	6.0
	30.0	7.5	5.6	8.0	5.8	8.5	5.8	9.0	6.0
	32.5	7.4	5.5	7.9	5.8	8.4	5.7	8.9	5.9
	35.0	7.3	5.4	7.8	5.7	8.3	5.7	8.8	5.9
	37.5	7.2	5.4	7.7	5.7	8.2	5.6	8.7	5.8
	40.0	7.1	5.4	7.6	5.6	8.1	5.6	8.6	5.8
	46.0	6.8	5.2	7.3	5.5	7.7	5.4	8.2	5.6
80 (9.0)	20.0	8.9	6.5	9.4	6.8	10.0	6.8	10.6	6.9
	22.5	8.8	6.5	9.3	6.7	9.9	6.7	10.4	6.9
	25.0	8.7	6.4	9.2	6.7	9.8	6.7	10.4	6.8
	27.5	8.6	6.4	9.1	6.7	9.7	6.6	10.3	6.8
	30.0	8.5	6.3	9.0	6.6	9.5	6.5	10.2	6.8
	32.5	8.3	6.2	8.9	6.6	9.5	6.5	10.0	6.7
	35.0	8.2	6.2	8.8	6.5	9.3	6.4	9.9	6.6
	37.5	8.1	6.1	8.6	6.4	9.2	6.4	9.8	6.6
	40.0	8.0	6.1	8.6	6.4	9.1	6.3	9.6	6.5
	46.0	7.7	5.9	8.2	6.2	8.7	6.1	9.3	6.4
100 (11.2)	20.0	11.1	8.7	11.6	9.1	12.5	9.1	13.1	9.3
	22.5	10.9	8.7	11.5	9.1	12.3	9.0	13.0	9.3
	25.0	10.8	8.6	11.5	9.0	12.2	9.0	12.9	9.2
	27.5	10.7	8.5	11.3	9.0	12.1	8.9	12.8	9.2
	30.0	10.5	8.5	11.2	8.9	11.9	8.8	12.6	9.1
	32.5	10.4	8.4	11.1	8.8	11.8	8.8	12.5	9.1
	35.0	10.2	8.3	10.9	8.8	11.6	8.7	12.3	9.0
	37.5	10.1	8.3	10.8	8.7	11.4	8.6	12.2	9.0
	40.0	10.0	8.2	10.6	8.6	11.3	8.6	12.0	8.9
	46.0	9.6	8.0	10.2	8.5	10.8	8.4	11.5	8.7
125 (14.0)	20.0	13.9	10.1	14.6	10.5	15.6	10.5	16.4	10.8
	22.5	13.7	10.0	14.4	10.4	15.4	10.4	16.2	10.7
	25.0	13.5	9.9	14.3	10.4	15.3	10.3	16.1	10.6
	27.5	13.4	9.9	14.2	10.3	15.1	10.2	16.0	10.6
	30.0	13.2	9.8	14.0	10.2	14.9	10.1	15.8	10.5
	32.5	13.0	9.6	13.8	10.2	14.7	10.1	15.6	10.4
	35.0	12.8	9.6	13.7	10.1	14.5	10.0	15.4	10.3
	37.5	12.6	9.5	13.4	10.0	14.3	9.9	15.2	10.2
	40.0	12.5	9.4	13.3	9.9	14.1	9.8	15.0	10.1
	46.0	12.0	9.2	12.8	9.7	13.5	9.5	14.4	9.9
140 (16.0)	20.0	15.8	11.6	16.6	12.0	17.8	12.0	18.8	12.3
	22.5	15.6	11.4	16.5	11.9	17.6	11.9	18.6	12.2
	25.0	15.5	11.4	16.4	11.9	17.4	11.8	18.4	12.1
	27.5	15.3	11.3	16.2	11.8	17.2	11.7	18.2	12.1
	30.0	15.0	11.1	16.0	11.7	17.0	11.6	18.0	12.0
	32.5	14.8	11.0	15.8	11.6	16.8	11.5	17.9	11.9
	35.0	14.6	10.9	15.6	11.5	16.5	11.4	17.6	11.8
	37.5	14.4	10.8	15.4	11.4	16.3	11.3	17.4	11.7
	40.0	14.2	10.8	15.2	11.3	16.1	11.2	17.2	11.6
	46.0	13.7	10.5	14.6	11.1	15.4	10.9	16.5	11.3
200 (22.4)	20.0	22.2	16.5	23.3	17.2	24.9	17.1	26.3	17.6
	22.5	21.9	16.4	23.1	17.1	24.6	17.0	26.0	17.5
	25.0	21.6	16.3	22.9	17.0	24.4	16.9	25.8	17.4
	27.5	21.4	16.1	22.7	16.9	24.1	16.8	25.5	17.3
	30.0	21.1	16.0	22.4	16.8	23.8	16.6	25.3	17.2
	32.5	20.7	15.8	22.1	16.7	23.5	16.5	25.0	17.1
	35.0	20.4	15.7	21.8	16.5	23.2	16.3	24.6	16.9
	37.5	20.2	15.5	21.5	16.4	22.8	16.2	24.4	16.8
	40.0	19.9	15.4	21.3	16.3	22.6	16.1	24.0	16.7
	46.0	19.2	15.1	20.5	15.9	21.6	15.7	23.1	16.3
250 (28.0)	20.0	27.7	20.6	29.1	21.4	31.2	21.3	32.8	21.9
	22.5	27.4	20.4	28.8	21.3	30.8	21.2	32.5	21.8
	25.0	27.0	20.2	28.6	21.2	30.5	21.0	32.2	21.6
	27.5	26.7	20.1	28.3	21.0	30.2	20.9	31.9	21.5
	30.0	26.3	19.9	28.0	20.9	29.7	20.7	31.6	21.4
	32.5	25.9	19.7	27.7	20.7	29.4	20.5	31.2	21.2
	35.0	25.5	19.5	27.3	20.5	29.0	20.3	30.8	21.0
	37.5	25.2	19.3	26.9	20.3	28.6	20.1	30.5	20.9
	40.0	24.9	19.2	26.6	20.2	28.2	20.0	30.0	20.7
	46.0	23.9	18.7	25.6	19.7	27.0	19.5	28.8	20.2

2-2.Heating Capacity (In combination with PUMY-125YM(A))

PEFY-P-VML-A,VMH-A

SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB		
		15.0	20.0	25.0
	˚CWB	SHC	SHC	SHC
20	-12.0	1.6	1.6	1.5
	-10.0	1.7	1.6	1.6
	-5.0	1.9	1.9	1.9
	0.0	2.2	2.1	2.1
	2.5	2.3	2.3	2.3
	6.0	2.5	2.5	2.5
	7.5	2.6	2.6	2.5
	10.0	2.8	2.7	2.5
	12.5	2.9	2.8	2.5
	15.5	3.1	2.8	2.5
25	-12.0	2.0	2.0	2.0
	-10.0	2.1	2.1	2.1
	-5.0	2.4	2.4	2.4
	0.0	2.8	2.8	2.7
	2.5	3.0	2.9	2.9
	6.0	3.2	3.2	3.2
	7.5	3.3	3.3	3.2
	10.0	3.5	3.5	3.2
	12.5	3.7	3.5	3.2
	15.5	3.9	3.5	3.2
32	-12.0	2.5	2.5	2.5
	-10.0	2.7	2.6	2.6
	-5.0	3.1	3.0	3.0
	0.0	3.5	3.4	3.4
	2.5	3.7	3.7	3.6
	6.0	4.0	4.0	3.9
	7.5	4.2	4.1	4.0
	10.0	4.4	4.4	4.0
	12.5	4.7	4.4	4.0
	15.5	4.9	4.4	4.0
40	-12.0	3.2	3.1	3.1
	-10.0	3.4	3.3	3.2
	-5.0	3.8	3.8	3.7
	0.0	4.3	4.3	4.2
	2.5	4.6	4.6	4.5
	6.0	5.0	5.0	4.9
	7.5	5.2	5.2	5.0
	10.0	5.5	5.5	5.0
	12.5	5.9	5.5	5.0
	15.5	6.2	5.5	5.0
50	-12.0	4.0	3.9	3.9
	-10.0	4.2	4.2	4.1
	-5.0	4.8	4.8	4.7
	0.0	5.5	5.4	5.3
	2.5	5.8	5.8	5.7
	6.0	6.3	6.3	6.2
	7.5	6.6	6.5	6.2
	10.0	7.0	6.9	6.2
	12.5	7.4	7.0	6.2
	15.5	7.7	7.0	6.2
63	-12.0	5.1	5.0	4.9
	-10.0	5.4	5.3	5.2
	-5.0	6.1	6.0	5.9
	0.0	6.9	6.9	6.8
	2.5	7.4	7.3	7.2
	6.0	8.0	8.0	7.9
	7.5	8.3	8.3	7.9
	10.0	8.8	8.8	7.9
	12.5	9.4	8.8	7.9
	15.5	9.8	8.8	7.9

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB		
		15.0	20.0	25.0
	˚CWB	SHC	SHC	SHC
71	-12.0	5.7	5.6	5.5
	-10.0	6.0	5.9	5.8
	-5.0	6.9	6.8	6.7
	0.0	7.8	7.7	7.6
	2.5	8.3	8.2	8.1
	6.0	9.1	9.0	8.9
	7.5	9.4	9.3	8.9
	10.0	9.9	9.9	8.9
	12.5	10.5	9.9	8.9
	15.5	11.1	9.9	8.9
80	-12.0	6.4	6.2	6.1
	-10.0	6.7	6.6	6.5
	-5.0	7.6	7.5	7.4
	0.0	8.7	8.6	8.5
	2.5	9.2	9.2	9.0
	6.0	10.1	10.0	9.9
	7.5	10.4	10.4	9.9
	10.0	11.1	11.0	9.9
	12.5	11.7	11.0	9.9
	15.5	12.3	11.0	9.9
100	-12.0	8.0	7.8	7.7
	-10.0	8.4	8.2	8.1
	-5.0	9.6	9.4	9.3
	0.0	10.9	10.7	10.6
	2.5	11.5	11.4	11.3
	6.0	12.6	12.5	12.3
	7.5	13.0	12.9	12.4
	10.0	13.8	13.7	12.4
	12.5	14.6	13.8	12.4
	15.5	15.4	13.8	12.4
125	-12.0	10.2	10.0	9.8
	-10.0	10.7	10.6	10.4
	-5.0	12.2	12.1	11.9
	0.0	13.9	13.8	13.6
	2.5	14.8	14.7	14.5
	6.0	16.1	16.0	15.8
	7.5	16.7	16.6	15.8
	10.0	17.7	17.6	15.8
	12.5	18.7	17.7	15.8
	15.5	19.7	17.7	15.8
140	-12.0	11.5	11.2	11.0
	-10.0	12.1	11.9	11.7
	-5.0	13.8	13.6	13.4
	0.0	15.6	15.5	15.3
	2.5	16.6	16.5	16.3
	6.0	18.1	18.0	17.8
	7.5	18.8	18.6	17.8
	10.0	19.9	19.8	17.8
	12.5	21.1	19.9	17.8
	15.5	22.1	19.9	17.8
200	-12.0	15.9	15.6	15.3
	-10.0	16.8	16.5	16.2
	-5.0	19.1	18.9	18.6
	0.0	21.7	21.5	21.2
	2.5	23.1	22.9	22.6
	6.0	25.1	25.0	24.7
	7.5	26.1	25.9	24.8
	10.0	27.6	27.5	24.8
	12.5	29.3	27.6	24.8
	15.5	30.8	27.6	24.8
250	-12.0	20.1	19.7	19.3
	-10.0	21.1	20.8	20.4
	-5.0	24.1	23.8	23.4
	0.0	27.3	27.1	26.7
	2.5	29.1	28.8	28.5
	6.0	31.7	31.5	31.1
	7.5	32.8	32.6	31.2
	10.0	34.8	34.6	31.2
	12.5	36.9	34.8	31.2
	15.5	38.7	34.8	31.2

2-3.Cooling Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PEFY-P-VML-A,VMH-A

CA:Capacity(kW)
SH:FSensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	20.0	2.2	1.8	2.2	1.9	2.3	1.9	2.3	1.9	2.4	2.0	2.5	1.9	2.6	1.9
(2.2)	22.5	2.1	1.8	2.2	1.9	2.3	1.8	2.3	1.9	2.4	1.9	2.4	1.9	2.5	1.9
	25.0	2.1	1.8	2.2	1.9	2.2	1.8	2.3	1.9	2.3	1.9	2.4	1.9	2.5	1.9
	27.5	2.1	1.8	2.1	1.9	2.2	1.8	2.3	1.9	2.3	1.9	2.4	1.9	2.5	1.8
	30.0	2.1	1.8	2.1	1.9	2.2	1.8	2.2	1.9	2.3	1.9	2.4	1.9	2.5	1.8
	32.5	2.0	1.8	2.1	1.8	2.2	1.8	2.2	1.8	2.3	1.9	2.4	1.9	2.4	1.8
	35.0	2.0	1.8	2.1	1.8	2.2	1.8	2.2	1.8	2.2	1.9	2.3	1.9	2.4	1.8
	37.5	2.0	1.8	2.0	1.8	2.1	1.8	2.2	1.8	2.2	1.9	2.3	1.9	2.4	1.8
	40.0	2.0	1.8	2.0	1.8	2.1	1.8	2.2	1.8	2.2	1.9	2.3	1.8	2.4	1.8
	43.0	2.0	1.7	2.0	1.8	2.1	1.8	2.1	1.8	2.2	1.9	2.3	1.8	2.3	1.8
25	20.0	2.7	2.2	2.8	2.2	2.9	2.2	3.0	2.2	3.0	2.3	3.1	2.2	3.2	2.2
(2.8)	22.5	2.7	2.2	2.8	2.2	2.9	2.2	2.9	2.2	3.0	2.3	3.1	2.2	3.2	2.2
	25.0	2.7	2.1	2.7	2.2	2.9	2.2	2.9	2.2	3.0	2.3	3.1	2.2	3.2	2.1
	27.5	2.7	2.1	2.7	2.2	2.8	2.1	2.9	2.2	2.9	2.2	3.1	2.2	3.2	2.1
	30.0	2.6	2.1	2.7	2.2	2.8	2.1	2.9	2.2	2.9	2.2	3.0	2.2	3.1	2.1
	32.5	2.6	2.1	2.7	2.2	2.8	2.1	2.8	2.1	2.9	2.2	3.0	2.2	3.1	2.1
	35.0	2.6	2.1	2.6	2.1	2.7	2.1	2.8	2.1	2.9	2.2	3.0	2.2	3.1	2.1
	37.5	2.5	2.1	2.6	2.1	2.7	2.1	2.8	2.1	2.8	2.2	2.9	2.2	3.1	2.1
	40.0	2.5	2.1	2.6	2.1	2.7	2.1	2.7	2.1	2.8	2.2	2.9	2.1	3.0	2.1
	43.0	2.5	2.0	2.5	2.1	2.7	2.1	2.7	2.1	2.8	2.2	2.9	2.1	3.0	2.1
32	20.0	3.5	2.7	3.6	2.8	3.7	2.7	3.8	2.7	3.9	2.8	4.0	2.7	4.2	2.7
(3.6)	22.5	3.5	2.7	3.6	2.7	3.7	2.7	3.8	2.7	3.9	2.8	4.0	2.7	4.1	2.7
	25.0	3.5	2.7	3.5	2.7	3.7	2.7	3.7	2.7	3.8	2.8	4.0	2.7	4.1	2.6
	27.5	3.4	2.6	3.5	2.7	3.6	2.7	3.7	2.7	3.8	2.8	3.9	2.7	4.1	2.6
	30.0	3.4	2.6	3.5	2.7	3.6	2.6	3.7	2.7	3.7	2.8	3.9	2.7	4.0	2.6
	32.5	3.3	2.6	3.4	2.7	3.6	2.6	3.6	2.7	3.7	2.7	3.9	2.7	4.0	2.6
	35.0	3.3	2.6	3.4	2.7	3.5	2.6	3.6	2.6	3.7	2.7	3.8	2.7	4.0	2.6
	37.5	3.3	2.6	3.3	2.6	3.5	2.6	3.6	2.6	3.6	2.7	3.8	2.7	3.9	2.6
	40.0	3.2	2.6	3.3	2.6	3.5	2.6	3.5	2.6	3.6	2.7	3.7	2.6	3.9	2.6
	43.0	3.2	2.5	3.3	2.6	3.4	2.6	3.5	2.6	3.6	2.7	3.7	2.6	3.8	2.6
40	20.0	4.4	3.3	4.5	3.4	4.7	3.3	4.8	3.4	4.9	3.5	5.0	3.4	5.2	3.3
(4.5)	22.5	4.4	3.3	4.5	3.4	4.6	3.3	4.7	3.3	4.8	3.4	5.0	3.4	5.2	3.3
	25.0	4.3	3.3	4.4	3.4	4.6	3.3	4.7	3.3	4.8	3.4	5.0	3.3	5.1	3.2
	27.5	4.3	3.3	4.4	3.3	4.5	3.3	4.6	3.3	4.7	3.4	4.9	3.3	5.1	3.2
	30.0	4.2	3.2	4.3	3.3	4.5	3.2	4.6	3.3	4.7	3.4	4.9	3.3	5.0	3.2
	32.5	4.2	3.2	4.3	3.3	4.5	3.2	4.5	3.3	4.6	3.4	4.8	3.3	5.0	3.2
	35.0	4.1	3.2	4.2	3.3	4.4	3.2	4.5	3.2	4.6	3.3	4.8	3.3	5.0	3.2
	37.5	4.1	3.2	4.2	3.2	4.4	3.2	4.5	3.2	4.5	3.3	4.7	3.3	4.9	3.2
	40.0	4.1	3.1	4.1	3.2	4.3	3.2	4.4	3.2	4.5	3.3	4.7	3.2	4.9	3.2
	43.0	4.0	3.1	4.1	3.2	4.3	3.1	4.4	3.2	4.4	3.3	4.6	3.2	4.8	3.1
50	20.0	5.5	3.9	5.6	4.0	5.8	3.9	5.9	3.9	6.0	4.0	6.3	3.9	6.5	3.8
(5.6)	22.5	5.4	3.9	5.5	3.9	5.8	3.9	5.9	3.9	6.0	4.0	6.2	3.9	6.4	3.8
	25.0	5.4	3.8	5.5	3.9	5.7	3.8	5.8	3.8	5.9	4.0	6.2	3.8	6.4	3.7
	27.5	5.3	3.8	5.4	3.9	5.7	3.8	5.8	3.8	5.9	3.9	6.1	3.8	6.3	3.7
	30.0	5.3	3.8	5.4	3.9	5.6	3.8	5.7	3.8	5.8	3.9	6.0	3.8	6.3	3.7
	32.5	5.2	3.8	5.3	3.8	5.5	3.7	5.7	3.8	5.8	3.9	6.0	3.8	6.2	3.7
	35.0	5.2	3.7	5.3	3.8	5.5	3.7	5.6	3.7	5.7	3.9	5.9	3.8	6.2	3.7
	37.5	5.1	3.7	5.2	3.8	5.4	3.7	5.5	3.7	5.7	3.8	5.9	3.7	6.1	3.6
	40.0	5.0	3.7	5.2	3.8	5.4	3.7	5.5	3.7	5.6	3.8	5.8	3.7	6.0	3.6
	43.0	5.0	3.6	5.1	3.7	5.3	3.6	5.4	3.7	5.5	3.8	5.8	3.7	6.0	3.6
63	20.0	7.0	5.1	7.1	5.2	7.4	5.1	7.5	5.1	7.7	5.3	8.0	5.2	8.2	5.0
(7.1)	22.5	6.9	5.1	7.0	5.2	7.3	5.1	7.5	5.1	7.6	5.3	7.9	5.1	8.2	5.0
	25.0	6.8	5.0	7.0	5.2	7.2	5.0	7.4	5.1	7.5	5.2	7.8	5.1	8.1	5.0
	27.5	6.7	5.0	6.9	5.1	7.2	5.0	7.3	5.1	7.5	5.2	7.7	5.1	8.0	4.9
	30.0	6.7	5.0	6.8	5.1	7.1	5.0	7.2	5.0	7.4	5.2	7.7	5.0	8.0	4.9
	32.5	6.6	4.9	6.7	5.1	7.0	4.9	7.2	5.0	7.3	5.2	7.6	5.0	7.9	4.9
	35.0	6.5	4.9	6.7	5.0	7.0	4.9	7.1	5.0	7.2	5.1	7.5	5.0	7.8	4.9
	37.5	6.5	4.9	6.6	5.0	6.9	4.9	7.0	4.9	7.2	5.1	7.5	5.0	7.7	4.8
	40.0	6.4	4.8	6.5	5.0	6.8	4.9	7.0	4.9	7.1	5.1	7.4	4.9	7.7	4.8
	43.0	6.3	4.8	6.4	4.9	6.7	4.8	6.9	4.9	7.0	5.0	7.3	4.9	7.6	4.8

Cooling Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PEFY-P-VML-A,VMH-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
71	20.0	7.8	5.7	8.0	5.8	8.3	5.7	8.5	5.7	8.6	5.9	9.0	5.8	9.3	5.6
(8.0)	22.5	7.8	5.7	7.9	5.8	8.2	5.7	8.4	5.7	8.6	5.9	8.9	5.7	9.2	5.6
	25.0	7.7	5.6	7.8	5.8	8.2	5.6	8.3	5.7	8.5	5.8	8.8	5.7	9.1	5.5
	27.5	7.6	5.6	7.8	5.7	8.1	5.6	8.2	5.6	8.4	5.8	8.7	5.7	9.0	5.5
	30.0	7.5	5.6	7.7	5.7	8.0	5.6	8.2	5.6	8.3	5.8	8.6	5.6	9.0	5.5
	32.5	7.4	5.5	7.6	5.6	7.9	5.5	8.1	5.6	8.2	5.7	8.6	5.6	8.9	5.4
	35.0	7.4	5.5	7.5	5.6	7.8	5.5	8.0	5.5	8.2	5.7	8.5	5.6	8.8	5.4
	37.5	7.3	5.4	7.4	5.6	7.8	5.5	7.9	5.5	8.1	5.7	8.4	5.5	8.7	5.4
	40.0	7.2	5.4	7.4	5.5	7.7	5.4	7.8	5.5	8.0	5.6	8.3	5.5	8.6	5.4
	43.0	7.1	5.4	7.3	5.5	7.6	5.4	7.7	5.4	7.9	5.6	8.2	5.5	8.5	5.3
80	20.0	8.8	6.5	9.0	6.6	9.4	6.5	9.5	6.5	9.7	6.7	10.1	6.5	10.4	6.3
(9.0)	22.5	8.7	6.4	8.9	6.6	9.3	6.4	9.5	6.5	9.6	6.7	10.0	6.5	10.4	6.3
	25.0	8.6	6.4	8.8	6.5	9.2	6.4	9.4	6.4	9.5	6.6	9.9	6.4	10.3	6.3
	27.5	8.6	6.3	8.7	6.5	9.1	6.3	9.3	6.4	9.5	6.6	9.8	6.4	10.2	6.2
	30.0	8.5	6.3	8.6	6.4	9.0	6.3	9.2	6.3	9.4	6.5	9.7	6.4	10.1	6.2
	32.5	8.4	6.2	8.6	6.4	8.9	6.2	9.1	6.3	9.3	6.5	9.6	6.3	10.0	6.2
	35.0	8.3	6.2	8.5	6.3	8.8	6.2	9.0	6.3	9.2	6.5	9.5	6.3	9.9	6.1
	37.5	8.2	6.2	8.4	6.3	8.7	6.2	8.9	6.2	9.1	6.4	9.5	6.3	9.8	6.1
	40.0	8.1	6.1	8.3	6.3	8.6	6.1	8.8	6.2	9.0	6.4	9.4	6.2	9.7	6.1
	43.0	8.0	6.1	8.2	6.2	8.5	6.1	8.7	6.1	8.9	6.3	9.3	6.2	9.6	6.0
100	20.0	11.0	8.7	11.2	8.9	11.6	8.7	11.9	8.8	12.1	9.1	12.5	8.9	13.0	8.7
(11.2)	22.5	10.9	8.6	11.1	8.9	11.5	8.7	11.8	8.8	12.0	9.1	12.4	8.9	12.9	8.6
	25.0	10.8	8.6	11.0	8.8	11.4	8.6	11.6	8.7	11.9	9.0	12.3	8.8	12.8	8.6
	27.5	10.6	8.5	10.9	8.8	11.3	8.6	11.5	8.7	11.8	9.0	12.2	8.8	12.7	8.6
	30.0	10.5	8.5	10.8	8.7	11.2	8.5	11.4	8.6	11.6	9.0	12.1	8.7	12.5	8.5
	32.5	10.4	8.4	10.6	8.6	11.1	8.5	11.3	8.6	11.5	8.9	12.0	8.7	12.4	8.5
	35.0	10.3	8.4	10.5	8.6	11.0	8.4	11.2	8.6	11.4	8.9	11.9	8.7	12.3	8.5
	37.5	10.2	8.3	10.4	8.5	10.9	8.4	11.1	8.5	11.3	8.8	11.8	8.6	12.2	8.4
	40.0	10.1	8.3	10.3	8.5	10.8	8.3	11.0	8.5	11.2	8.8	11.6	8.6	12.1	8.4
	43.0	9.9	8.2	10.2	8.4	10.6	8.3	10.8	8.4	11.1	8.7	11.5	8.5	12.0	8.3
125	20.0	13.7	10.0	14.0	10.2	14.6	10.0	14.8	10.1	15.1	10.4	15.7	10.1	16.2	9.8
(14.0)	22.5	13.6	10.0	13.9	10.2	14.4	9.9	14.7	10.0	15.0	10.3	15.5	10.0	16.1	9.8
	25.0	13.4	9.9	13.7	10.1	14.3	9.9	14.6	10.0	14.8	10.3	15.4	10.0	16.0	9.7
	27.5	13.3	9.8	13.6	10.0	14.1	9.8	14.4	9.9	14.7	10.2	15.3	9.9	15.8	9.7
	30.0	13.2	9.8	13.4	10.0	14.0	9.8	14.3	9.8	14.6	10.1	15.1	9.9	15.7	9.6
	32.5	13.0	9.7	13.3	9.9	13.9	9.7	14.1	9.8	14.4	10.1	15.0	9.8	15.5	9.6
	35.0	12.9	9.6	13.2	9.8	13.7	9.6	14.0	9.7	14.3	10.0	14.8	9.8	15.4	9.5
	37.5	12.7	9.5	13.0	9.8	13.6	9.6	13.9	9.7	14.1	10.0	14.7	9.7	15.3	9.5
	40.0	12.6	9.5	12.9	9.7	13.4	9.5	13.7	9.6	14.0	9.9	14.6	9.7	15.1	9.4
	43.0	12.4	9.4	12.7	9.6	13.3	9.4	13.6	9.5	13.8	9.8	14.4	9.6	15.0	9.4
140	20.0	15.7	11.5	16.0	11.7	16.6	11.4	17.0	11.5	17.3	11.9	17.9	11.5	18.6	11.2
(16.0)	22.5	15.5	11.4	15.8	11.6	16.5	11.4	16.8	11.4	17.1	11.8	17.8	11.5	18.4	11.2
	25.0	15.4	11.3	15.7	11.6	16.3	11.3	16.6	11.4	17.0	11.7	17.6	11.4	18.2	11.1
	27.5	15.2	11.2	15.5	11.5	16.2	11.2	16.5	11.3	16.8	11.7	17.4	11.4	18.1	11.0
	30.0	15.0	11.1	15.4	11.4	16.0	11.2	16.3	11.2	16.6	11.6	17.3	11.3	17.9	11.0
	32.5	14.9	11.1	15.2	11.3	15.8	11.1	16.2	11.2	16.5	11.5	17.1	11.2	17.8	10.9
	35.0	14.7	11.0	15.0	11.2	15.7	11.0	16.0	11.1	16.3	11.5	17.0	11.2	17.6	10.9
	37.5	14.6	10.9	14.9	11.2	15.5	10.9	15.8	11.0	16.2	11.4	16.8	11.1	17.4	10.8
	40.0	14.4	10.8	14.7	11.1	15.4	10.9	15.7	11.0	16.0	11.3	16.6	11.1	17.3	10.8
	43.0	14.2	10.7	14.5	11.0	15.2	10.8	15.5	10.9	15.8	11.3	16.4	11.0	17.1	10.7
200	20.0	22.0	16.4	22.4	16.8	23.3	16.4	23.7	16.5	24.2	17.1	25.1	16.6	26.0	16.2
(22.4)	22.5	21.7	16.3	22.2	16.7	23.1	16.3	23.5	16.5	24.0	17.0	24.9	16.5	25.8	16.1
	25.0	21.5	16.2	22.0	16.6	22.8	16.2	23.3	16.4	23.7	16.9	24.6	16.5	25.5	16.0
	27.5	21.3	16.1	21.7	16.5	22.6	16.1	23.1	16.3	23.5	16.8	24.4	16.4	25.3	15.9
	30.0	21.1	16.0	21.5	16.4	22.4	16.0	22.8	16.2	23.3	16.7	24.2	16.3	25.1	15.9
	32.5	20.8	15.9	21.3	16.3	22.2	15.9	22.6	16.1	23.1	16.6	24.0	16.2	24.9	15.8
	35.0	20.6	15.8	21.1	16.1	22.0	15.8	22.4	16.0	22.8	16.5	23.7	16.1	24.6	15.7
	37.5	20.4	15.6	20.8	16.0	21.7	15.7	22.2	15.9	22.6	16.4	23.5	16.0	24.4	15.6
	40.0	20.2	15.5	20.6	15.9	21.5	15.6	22.0	15.8	22.4	16.3	23.3	16.0	24.2	15.5
	43.0	19.9	15.4	20.3	15.8	21.2	15.5	21.7	15.7	22.1	16.2	23.0	15.9	23.9	15.5
250	20.0	27.4	20.4	28.0	20.9	29.1	20.4	29.7	20.6	30.2	21.2	31.4	20.7	32.5	20.1
(28.0)	22.5	27.2	20.3	27.7	20.7	28.8	20.3	29.4	20.4	30.0	21.1	31.1	20.5	32.2	20.0
	25.0	26.9	20.1	27.4	20.6	28.6	20.1	29.1	20.3	29.7	21.0	30.8	20.4	31.9	19.9
	27.5	26.6	20.0	27.2	20.5	28.3	20.0	28.8	20.2	29.4	20.9	30.5	20.3	31.6	19.8
	30.0	26.3	19.9	26.9	20.3	28.0	19.9	28.6	20.1	29.1	20.7	30.2	20.2	31.4	19.7
	32.5	26.0	19.7	26.6	20.2	27.7	19.8	28.3	20.0	28.8	20.6	30.0	20.1	31.1	19.6
	35.0	25.8	19.6	26.3	20.1	27.4	19.6	28.0	19.9	28.6	20.5	29.7	20.0	30.8	19.5
	37.5	25.5	19.4	26.0	19.9	27.2	19.5	27.7	19.7	28.3	20.4	29.4	19.9	30.5	19.4
	40.0	25.2	19.3	25.8	19.8	26.9	19.4	27.4	19.6	28.0	20.3	29.1	19.8	30.2	19.3
	43.0	24.9	19.2	25.4	19.6	26.5	19.3	27.1	19.5	27.7	20.1	28.8	19.7	29.9	19.2

2-4.Heating Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PEFY-P-VML-A,VMH-A

SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15.0	20.0	25.0	27.0
	˚CWB	SHC	SHC	SHC	SHC
20	-15.0	1.7	1.6	1.6	1.6
	-10.0	1.9	1.9	1.9	1.7
	-5.0	2.1	2.1	2.0	1.7
	0.0	2.4	2.4	2.0	1.7
	2.5	2.5	2.5	2.0	1.7
	6.0	2.5	2.5	2.0	1.7
	7.5	2.6	2.5	2.0	1.7
	10.0	2.8	2.5	2.0	1.7
	12.5	3.0	2.5	2.0	1.7
	15.5	3.0	2.5	2.0	1.7
25	-15.0	2.1	2.1	2.1	2.1
	-10.0	2.4	2.4	2.4	2.2
	-5.0	2.7	2.7	2.5	2.2
	0.0	3.1	3.0	2.5	2.2
	2.5	3.2	3.2	2.5	2.2
	6.0	3.2	3.2	2.5	2.2
	7.5	3.4	3.2	2.5	2.2
	10.0	3.6	3.2	2.5	2.2
	12.5	3.8	3.2	2.5	2.2
	15.5	3.9	3.2	2.5	2.2
32	-15.0	2.7	2.6	2.6	2.6
	-10.0	3.1	3.0	3.0	2.8
	-5.0	3.4	3.4	3.1	2.8
	0.0	3.8	3.8	3.1	2.8
	2.5	4.0	4.0	3.1	2.8
	6.0	4.0	4.0	3.1	2.8
	7.5	4.2	4.0	3.1	2.8
	10.0	4.5	4.0	3.1	2.8
	12.5	4.8	4.0	3.1	2.8
	15.5	4.8	4.0	3.1	2.8
40	-15.0	3.3	3.3	3.3	3.3
	-10.0	3.8	3.8	3.7	3.5
	-5.0	4.3	4.2	3.9	3.5
	0.0	4.8	4.7	3.9	3.5
	2.5	5.0	5.0	3.9	3.5
	6.0	5.1	5.0	3.9	3.5
	7.5	5.3	5.0	3.9	3.5
	10.0	5.6	5.0	3.9	3.5
	12.5	6.0	5.0	3.9	3.5
	15.5	6.1	5.0	3.9	3.5
50	-15.0	4.2	4.2	4.1	4.1
	-10.0	4.8	4.8	4.7	4.3
	-5.0	5.4	5.3	4.9	4.3
	0.0	6.0	5.9	4.9	4.3
	2.5	6.3	6.2	4.9	4.3
	6.0	6.4	6.3	4.9	4.3
	7.5	6.6	6.3	4.9	4.3
	10.0	7.1	6.3	4.9	4.3
	12.5	7.5	6.3	4.9	4.3
	15.5	7.6	6.3	4.9	4.3
63	-15.0	5.4	5.3	5.2	5.2
	-10.0	6.1	6.0	6.0	5.5
	-5.0	6.9	6.8	6.2	5.5
	0.0	7.6	7.5	6.2	5.5
	2.5	8.0	7.9	6.2	5.5
	6.0	8.1	8.0	6.2	5.5
	7.5	8.4	8.0	6.2	5.5
	10.0	9.0	8.0	6.2	5.5
	12.5	9.6	8.0	6.2	5.5
	15.5	9.7	8.0	6.2	5.5

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15.0	20.0	25.0	27.0
	˚CWB	SHC	SHC	SHC	SHC
71	-15.0	6.0	5.9	5.9	5.9
	-10.0	6.9	6.8	6.7	6.2
	-5.0	7.7	7.6	7.0	6.2
	0.0	8.6	8.5	7.0	6.2
	2.5	9.0	8.9	7.0	6.2
	6.0	9.1	9.0	7.0	6.2
	7.5	9.5	9.0	7.0	6.2
	10.0	10.1	9.0	7.0	6.2
	12.5	10.8	9.0	7.0	6.2
	15.5	10.9	9.0	7.0	6.2
80	-15.0	6.7	6.6	6.5	6.5
	-10.0	7.6	7.5	7.4	6.9
	-5.0	8.6	8.5	7.8	6.9
	0.0	9.5	9.4	7.8	6.9
	2.5	10.0	9.9	7.8	6.9
	6.0	10.1	10.0	7.8	6.9
	7.5	10.5	10.0	7.8	6.9
	10.0	11.2	10.0	7.8	6.9
	12.5	12.0	10.0	7.8	6.9
	15.5	12.1	10.0	7.8	6.9
100	-15.0	8.4	8.2	8.2	8.1
	-10.0	9.6	9.4	9.3	8.6
	-5.0	10.7	10.6	9.8	8.6
	0.0	11.9	11.8	9.8	8.6
	2.5	12.5	12.4	9.8	8.6
	6.0	12.6	12.5	9.8	8.6
	7.5	13.2	12.5	9.8	8.6
	10.0	14.1	12.5	9.8	8.6
	12.5	15.0	12.5	9.8	8.6
	15.5	15.1	12.5	9.8	8.6
125	-15.0	10.7	10.6	10.5	10.4
	-10.0	12.2	12.1	11.9	11.0
	-5.0	13.7	13.6	12.5	11.0
	0.0	15.3	15.1	12.5	11.0
	2.5	16.0	15.8	12.5	11.0
	6.0	16.2	16.0	12.5	11.0
	7.5	16.8	16.0	12.5	11.0
	10.0	18.0	16.0	12.5	11.0
	12.5	19.1	16.0	12.5	11.0
	15.5	19.4	16.0	12.5	11.0
140	-15.0	12.1	11.9	11.8	11.7
	-10.0	13.8	13.6	13.4	12.4
	-5.0	15.5	15.3	14.0	12.4
	0.0	17.2	17.0	14.0	12.4
	2.5	18.0	17.8	14.0	12.4
	6.0	18.2	18.0	14.0	12.4
	7.5	19.0	18.0	14.0	12.4
	10.0	20.2	18.0	14.0	12.4
	12.5	21.5	18.0	14.0	12.4
	15.5	21.8	18.0	14.0	12.4
200	-15.0	16.7	16.5	16.4	16.3
	-10.0	19.1	18.9	18.6	17.3
	-5.0	21.5	21.2	19.5	17.3
	0.0	23.8	23.6	19.5	17.3
	2.5	25.0	24.8	19.5	17.3
	6.0	25.3	25.0	19.5	17.3
	7.5	26.3	25.0	19.5	17.3
	10.0	28.1	25.0	19.5	17.3
	12.5	29.9	25.0	19.5	17.3
	15.5	30.3	25.0	19.5	17.3
250	-15.0	21.1	20.8	20.6	20.5
	-10.0	24.1	23.8	23.4	21.7
	-5.0	27.1	26.7	24.6	21.7
	0.0	30.0	29.7	24.6	21.7
	2.5	31.5	31.2	24.6	21.7
	6.0	31.8	31.5	24.6	21.7
	7.5	33.2	31.5	24.6	21.7
	10.0	35.4	31.5	24.6	21.7
	12.5	37.7	31.5	24.6	21.7
	15.5	38.1	31.5	24.6	21.7

2-5.Cooling capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

PEFY-P-VML-A,VMH-A

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		˚32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	20.0	1813	1558	1901	1629	2049	1626	2157	1680	2192	1738	2320	1715	2459	1690
	22.5	1813	1558	1894	1625	2031	1618	2131	1670	2164	1727	2290	1704	2424	1679
	25.0	1799	1551	1876	1617	2008	1609	2105	1659	2137	1717	2259	1693	2389	1667
	27.5	1784	1545	1857	1609	1985	1599	2079	1649	2110	1706	2229	1682	2354	1656
	30.0	1770	1538	1839	1601	1962	1590	2052	1639	2083	1696	2198	1671	2319	1644
	32.5	1755	1532	1821	1593	1939	1580	2026	1629	2055	1686	2167	1660	2285	1633
	35.0	1741	1525	1802	1585	1916	1571	2000	1619	2028	1675	2137	1650	2250	1622
	37.5	1726	1519	1784	1577	1893	1562	1974	1609	2001	1665	2106	1639	2215	1611
	40.0	1712	1512	1766	1569	1870	1552	1948	1598	1974	1655	2076	1628	2180	1600
	43.0	1695	1504	1744	1559	1843	1541	1916	1586	1941	1642	2039	1616	2139	1586
25	20.0	2266	1820	2377	1899	2561	1897	2697	1955	2740	2017	2900	1989	3073	1959
	22.5	2266	1820	2367	1895	2539	1887	2664	1942	2705	2004	2862	1975	3030	1944
	25.0	2248	1812	2345	1884	2510	1875	2631	1928	2671	1990	2824	1961	2986	1929
	27.5	2230	1803	2322	1874	2482	1863	2598	1915	2637	1976	2786	1947	2943	1915
	30.0	2212	1795	2299	1863	2453	1850	2566	1902	2603	1963	2748	1933	2899	1900
	32.5	2194	1786	2276	1853	2424	1838	2533	1889	2569	1949	2709	1919	2856	1885
	35.0	2176	1778	2253	1842	2395	1826	2500	1876	2535	1936	2671	1905	2812	1871
	37.5	2158	1769	2230	1832	2367	1814	2467	1862	2501	1923	2633	1891	2769	1856
	40.0	2140	1761	2207	1822	2338	1802	2434	1849	2467	1909	2595	1877	2725	1842
	43.0	2118	1751	2180	1809	2304	1787	2395	1834	2426	1893	2549	1861	2673	1824
32	20.0	2855	2233	2995	2328	3227	2326	3398	2395	3452	2468	3654	2433	3872	2396
	22.5	2855	2233	2983	2322	3199	2314	3357	2378	3409	2450	3606	2415	3817	2377
	25.0	2833	2222	2954	2309	3163	2298	3315	2361	3366	2433	3558	2397	3763	2358
	27.5	2810	2211	2925	2295	3127	2282	3274	2344	3323	2416	3510	2379	3708	2339
	30.0	2787	2201	2896	2282	3091	2267	3233	2327	3280	2398	3462	2361	3653	2320
	32.5	2765	2190	2868	2269	3055	2251	3191	2310	3237	2381	3414	2343	3598	2301
	35.0	2742	2179	2839	2255	3018	2235	3150	2293	3194	2364	3366	2325	3544	2282
	37.5	2719	2168	2810	2242	2982	2220	3109	2276	3151	2347	3318	2307	3489	2264
	40.0	2696	2157	2781	2229	2946	2204	3067	2260	3109	2330	3270	2290	3434	2245
	43.0	2669	2145	2746	2213	2902	2186	3018	2239	3057	2309	3212	2268	3368	2223
40	20.0	3625	2773	3803	2889	4098	2888	4315	2971	4383	3057	4640	3014	4917	2968
	22.5	3625	2773	3788	2882	4063	2872	4262	2948	4329	3035	4579	2991	4848	2943
	25.0	3597	2760	3751	2864	4017	2852	4210	2926	4274	3012	4518	2967	4778	2919
	27.5	3568	2746	3715	2847	3971	2832	4157	2904	4220	2990	4457	2944	4708	2894
	30.0	3539	2732	3678	2830	3925	2811	4105	2883	4165	2967	4396	2921	4639	2870
	32.5	3511	2718	3641	2813	3879	2791	4052	2861	4111	2945	4335	2898	4569	2846
	35.0	3482	2704	3605	2796	3833	2771	4000	2839	4056	2923	4274	2875	4500	2821
	37.5	3453	2690	3568	2779	3787	2751	3948	2817	4002	2901	4213	2852	4430	2797
	40.0	3424	2676	3531	2761	3741	2731	3895	2796	3947	2879	4152	2829	4361	2774
	43.0	3389	2660	3487	2741	3686	2707	3832	2770	3882	2853	4078	2802	4277	2745
50	20.0	4532	3258	4753	3386	5123	3391	5393	3477	5479	3566	5800	3514	6146	3459
	22.5	4532	3258	4735	3377	5078	3370	5328	3447	5411	3536	5724	3483	6059	3425
	25.0	4496	3240	4689	3354	5021	3343	5262	3418	5343	3506	5648	3452	5972	3393
	27.5	4460	3222	4643	3331	4963	3316	5197	3389	5275	3476	5571	3421	5886	3360
	30.0	4424	3203	4597	3308	4906	3289	5131	3360	5207	3446	5495	3390	5799	3327
	32.5	4388	3185	4552	3286	4848	3262	5066	3331	5139	3417	5419	3359	5712	3295
	35.0	4352	3166	4506	3263	4791	3235	5000	3302	5070	3387	5342	3328	5625	3263
	37.5	4316	3148	4460	3240	4734	3209	4934	3273	5002	3358	5266	3298	5538	3231
	40.0	4280	3130	4414	3218	4676	3183	4869	3244	4934	3329	5190	3268	5451	3199
	43.0	4237	3108	4359	3191	4607	3151	4790	3210	4852	3294	5098	3232	5347	3161
63	20.0	5710	4263	5989	4437	6455	4438	6796	4559	6904	4687	7309	4620	7744	4548
	22.5	5710	4263	5966	4425	6399	4412	6713	4524	6818	4651	7212	4582	7635	4508
	25.0	5665	4241	5908	4398	6326	4380	6630	4488	6732	4614	7116	4544	7525	4468
	27.5	5620	4219	5851	4370	6254	4347	6548	4453	6646	4578	7020	4507	7416	4429
	30.0	5574	4196	5793	4342	6181	4315	6465	4418	6560	4542	6924	4469	7306	4390
	32.5	5529	4174	5735	4315	6109	4282	6383	4383	6475	4506	6828	4432	7197	4350
	35.0	5484	4151	5677	4287	6037	4250	6300	4348	6389	4471	6731	4395	7087	4312
	37.5	5438	4129	5620	4260	5964	4218	6217	4313	6303	4435	6635	4358	6978	4273
	40.0	5393	4107	5562	4232	5892	4186	6135	4278	6217	4400	6539	4322	6868	4234
	43.0	5338	4080	5493	4200	5805	4147	6036	4237	6114	4358	6424	4278	6737	4189

Cooling capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

PEFY-P-VML-A,VMH-A

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
71	20.0	6435	4764	6750	4956	7274	4959	7659	5093	7780	5233	8237	5157	8728	5077
	22.5	6435	4764	6724	4944	7211	4930	7566	5052	7684	5191	8128	5114	8604	5031
	25.0	6385	4739	6659	4912	7130	4893	7472	5012	7587	5150	8020	5071	8481	4986
	27.5	6334	4714	6593	4880	7048	4856	7379	4972	7490	5109	7911	5029	8358	4942
	30.0	6282	4688	6528	4849	6966	4819	7286	4932	7393	5068	7803	4986	8234	4897
	32.5	6231	4663	6463	4818	6885	4782	7193	4892	7297	5027	7695	4944	8111	4853
	35.0	6180	4637	6398	4786	6803	4745	7100	4852	7200	4987	7586	4902	7987	4808
	37.5	6129	4612	6333	4755	6722	4709	7007	4813	7103	4946	7478	4860	7864	4764
	40.0	6078	4587	6268	4724	6640	4672	6914	4773	7006	4906	7369	4818	7740	4721
	43.0	6016	4557	6190	4687	6542	4629	6802	4726	6890	4858	7239	4769	7592	4669
80	20.0	7251	5395	7605	5613	8196	5615	8629	5768	8767	5928	9281	5843	9834	5752
	22.5	7251	5395	7576	5599	8125	5583	8525	5723	8658	5882	9159	5795	9695	5701
	25.0	7194	5366	7503	5564	8033	5541	8420	5678	8549	5836	9036	5747	9556	5651
	27.5	7136	5338	7429	5528	7941	5500	8315	5633	8440	5790	8914	5699	9417	5601
	30.0	7079	5309	7356	5493	7849	5458	8210	5588	8331	5744	8792	5652	9278	5551
	32.5	7021	5281	7283	5458	7758	5417	8105	5543	8222	5698	8670	5604	9139	5501
	35.0	6963	5252	7209	5423	7666	5376	8000	5498	8113	5653	8548	5557	9000	5451
	37.5	6906	5224	7136	5388	7574	5335	7895	5454	8004	5608	8426	5510	8861	5402
	40.0	6848	5196	7063	5353	7482	5294	7790	5410	7895	5563	8304	5463	8722	5353
	43.0	6779	5162	6975	5311	7371	5245	7664	5357	7764	5509	8157	5408	8555	5295
100	20.0	9063	7285	9507	7601	10245	7593	10787	7826	10958	8074	11601	7962	12293	7844
	22.5	9063	7285	9470	7584	10157	7555	10656	7773	10822	8019	11448	7905	12119	7784
	25.0	8993	7252	9378	7542	10042	7505	10525	7720	10686	7965	11296	7849	11945	7725
	27.5	8920	7218	9287	7500	9927	7456	10393	7667	10550	7911	11143	7793	11771	7666
	30.0	8848	7184	9195	7458	9812	7408	10262	7614	10413	7857	10990	7737	11597	7607
	32.5	8776	7151	9103	7417	9697	7359	10131	7561	10277	7803	10837	7681	11423	7549
	35.0	8704	7117	9012	7375	9582	7310	10000	7509	10141	7749	10685	7626	11250	7490
	37.5	8632	7083	8920	7334	9467	7262	9869	7456	10005	7696	10532	7570	11076	7432
	40.0	8560	7050	8828	7293	9352	7214	9738	7404	9868	7643	10379	7515	10902	7374
	43.0	8474	7010	8718	7243	9214	7156	9580	7342	9705	7579	10196	7449	10693	7305
125	20.0	11329	8392	11883	8731	12807	8735	13484	8971	13698	9218	14501	9086	15366	8943
	22.5	11329	8392	11837	8709	12696	8684	13320	8900	13527	9145	14310	9010	15149	8864
	25.0	11241	8348	11723	8653	12552	8619	13156	8829	13357	9073	14119	8934	14931	8784
	27.5	11151	8303	11608	8598	12408	8554	12992	8758	13187	9001	13929	8859	14714	8706
	30.0	11060	8258	11494	8542	12265	8489	12828	8688	13017	8929	13738	8785	14497	8627
	32.5	10970	8214	11379	8487	12121	8424	12664	8618	12846	8857	13547	8710	14279	8549
	35.0	10880	8169	11265	8432	11977	8360	12500	8548	12676	8786	13356	8636	14062	8471
	37.5	10790	8125	11150	8378	11834	8296	12336	8478	12506	8715	13165	8563	13845	8394
	40.0	10700	8080	11035	8323	11690	8232	12172	8409	12335	8644	12974	8489	13627	8317
	43.0	10592	8027	10898	8258	11518	8155	11975	8326	12131	8560	12745	8402	13367	8225
140	20.0	12689	9465	13309	9850	14344	9852	15102	10122	15342	10406	16241	10256	17210	10095
	22.5	12689	9465	13258	9825	14219	9796	14918	10043	15151	10325	16028	10171	16966	10006
	25.0	12590	9416	13130	9763	14058	9723	14734	9964	14960	10244	15814	10088	16723	9918
	27.5	12489	9366	13001	9702	13897	9651	14551	9886	14769	10164	15600	10004	16480	9831
	30.0	12388	9316	12873	9640	13737	9579	14367	9807	14579	10084	15386	9921	16236	9743
	32.5	12287	9266	12745	9579	13576	9507	14184	9729	14388	10004	15172	9838	15993	9657
	35.0	12186	9217	12616	9518	13415	9435	14000	9652	14197	9925	14959	9756	15749	9570
	37.5	12085	9167	12488	9457	13254	9363	13816	9574	14006	9846	14745	9674	15506	9484
	40.0	11984	9118	12360	9396	13093	9292	13633	9497	13816	9767	14531	9593	15263	9399
	43.0	11863	9059	12206	9323	12900	9207	13412	9405	13587	9673	14275	9495	14971	9296
200	20.0	18126	13746	19013	14314	20491	14312	21574	14715	21916	15141	23202	14924	24585	14692
	22.5	18126	13746	18940	14279	20313	14232	21311	14604	21644	15027	22896	14805	24238	14567
	25.0	17985	13677	18756	14192	20083	14130	21049	14493	21372	14913	22591	14687	23890	14443
	27.5	17841	13606	18573	14105	19854	14028	20787	14382	21099	14800	22286	14570	23542	14320
	30.0	17697	13536	18390	14018	19624	13926	20525	14272	20827	14688	21980	14453	23195	14197
	32.5	17553	13466	18207	13931	19394	13825	20262	14162	20554	14575	21675	14337	22847	14075
	35.0	17408	13396	18023	13845	19164	13723	20000	14053	20282	14464	21370	14221	22499	13954
	37.5	17264	13326	17840	13759	18934	13623	19738	13944	20009	14352	21064	14105	22151	13832
	40.0	17120	13256	17657	13673	18704	13522	19475	13835	19737	14241	20759	13990	21804	13712
	43.0	16947	13173	17437	13570	18428	13402	19161	13705	19410	14109	20392	13853	21387	13568
250	20.0	22658	17092	23766	17795	25613	17794	26967	18291	27396	18815	29002	18544	30732	18256
	22.5	22658	17092	23675	17751	25392	17694	26639	18151	27055	18672	28621	18396	30297	18099
	25.0	22481	17005	23446	17641	25104	17566	26311	18012	26714	18529	28239	18248	29862	17944
	27.5	22301	16916	23216	17532	24817	17437	25984	17873	26374	18387	27857	18100	29428	17789
	30.0	22121	16828	22987	17423	24530	17310	25656	17734	26033	18246	27475	17954	28993	17635
	32.5	21941	16740	22758	17314	24242	17182	25328	17597	25693	18105	27094	17807	28559	17481
	35.0	21761	16652	22529	17206	23955	17055	25000	17459	25352	17965	26712	17662	28124	17328
	37.5	21580	16565	22300	17098	23668	16929	24672	17322	25011	17825	26330	17517	27689	17176
	40.0	21400	16477	22071	16990	23380	16803	24344	17186	24671	17686	25948	17373	27255	17025
	43.0	21184	16373	21796	16862	23035	16652	23951	17023	24262	17519	25490	17200	26733	16844

2-6.Heating capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PEFY-P-VML-A,VMH-A

SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚CWB	SHC	SHC	SHC	SHC
20	-15.0	1555	1532	1509	1500
	-10.0	1774	1751	1728	1601
	-5.0	1994	1970	1809	1601
	0.0	2213	2190	1809	1601
	2.5	2322	2250	1809	1601
	6.0	2343	2250	1809	1601
	7.5	2441	2250	1809	1601
	10.0	2605	2250	1809	1601
	12.5	2769	2250	1809	1601
	15.5	2807	2250	1809	1601
25	-15.0	1935	1907	1878	1866
	-10.0	2208	2179	2151	1992
	-5.0	2481	2452	2252	1992
	0.0	2754	2725	2252	1992
	2.5	2890	2800	2252	1992
	6.0	2915	2800	2252	1992
	7.5	3038	2800	2252	1992
	10.0	3242	2800	2252	1992
	12.5	3446	2800	2252	1992
	15.5	3493	2800	2252	1992
32	-15.0	2454	2417	2381	2366
	-10.0	2800	2763	2727	2525
	-5.0	3146	3109	2855	2525
	0.0	3491	3455	2855	2525
	2.5	3664	3550	2855	2525
	6.0	3696	3550	2855	2525
	7.5	3852	3550	2855	2525
	10.0	4111	3550	2855	2525
	12.5	4370	3550	2855	2525
	15.5	4428	3550	2855	2525
40	-15.0	3111	3064	3018	2999
	-10.0	3549	3503	3456	3201
	-5.0	3987	3941	3619	3201
	0.0	4426	4379	3619	3201
	2.5	4645	4500	3619	3201
	6.0	4686	4500	3619	3201
	7.5	4883	4500	3619	3201
	10.0	5211	4500	3619	3201
	12.5	5539	4500	3619	3201
	15.5	5613	4500	3619	3201
50	-15.0	3871	3813	3755	3732
	-10.0	4416	4359	4301	3984
	-5.0	4962	4904	4503	3984
	0.0	5508	5450	4503	3984
	2.5	5780	5600	4503	3984
	6.0	5831	5600	4503	3984
	7.5	6076	5600	4503	3984
	10.0	6484	5600	4503	3984
	12.5	6893	5600	4503	3984
	15.5	6986	5600	4503	3984
63	-15.0	4908	4835	4761	4732
	-10.0	5599	5526	5453	5051
	-5.0	6291	6218	5709	5051
	0.0	6983	6910	5709	5051
	2.5	7329	7100	5709	5051
	6.0	7393	7100	5709	5051
	7.5	7704	7100	5709	5051
	10.0	8221	7100	5709	5051
	12.5	8739	7100	5709	5051
	15.5	8857	7100	5709	5051

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚CWB	SHC	SHC	SHC	SHC
71	-15.0	5530	5447	5365	5332
	-10.0	6309	6227	6144	5691
	-5.0	7089	7006	6433	5691
	0.0	7868	7786	6433	5691
	2.5	8258	8000	6433	5691
	6.0	8330	8000	6433	5691
	7.5	8680	8000	6433	5691
	10.0	9264	8000	6433	5691
	12.5	9847	8000	6433	5691
	15.5	9979	8000	6433	5691
80	-15.0	6221	6128	6036	5998
	-10.0	7098	7005	6912	6402
	-5.0	7975	7882	7237	6402
	0.0	8852	8759	7237	6402
	2.5	9290	9000	7237	6402
	6.0	9371	9000	7237	6402
	7.5	9765	9000	7237	6402
	10.0	10421	9000	7237	6402
	12.5	11078	9000	7237	6402
	15.5	11227	9000	7237	6402
100	-15.0	7742	7626	7511	7465
	-10.0	8833	8718	8602	7967
	-5.0	9924	9809	9006	7967
	0.0	11015	10900	9006	7967
	2.5	11561	11200	9006	7967
	6.0	11662	11200	9006	7967
	7.5	12152	11200	9006	7967
	10.0	12969	11200	9006	7967
	12.5	13786	11200	9006	7967
	15.5	13971	11200	9006	7967
125	-15.0	9677	9533	9389	9331
	-10.0	11041	10897	10753	9959
	-5.0	12405	12261	11258	9959
	0.0	13769	13625	11258	9959
	2.5	14451	14000	11258	9959
	6.0	14577	14000	11258	9959
	7.5	15190	14000	11258	9959
	10.0	16211	14000	11258	9959
	12.5	17232	14000	11258	9959
	15.5	17464	14000	11258	9959
140	-15.0	11060	10895	10730	10664
	-10.0	12619	12454	12289	11381
	-5.0	14177	14012	12866	11381
	0.0	15736	15571	12866	11381
	2.5	16515	16000	12866	11381
	6.0	16660	16000	12866	11381
	7.5	17360	16000	12866	11381
	10.0	18527	16000	12866	11381
	12.5	19694	16000	12866	11381
	15.5	19959	16000	12866	11381
200	-15.0	15484	15253	15022	14929
	-10.0	17666	17435	17204	15934
	-5.0	19848	19617	18012	15934
	0.0	22031	21800	18012	15934
	2.5	23122	22400	18012	15934
	6.0	23324	22400	18012	15934
	7.5	24304	22400	18012	15934
	10.0	25938	22400	18012	15934
	12.5	27572	22400	18012	15934
	15.5	27942	22400	18012	15934
250	-15.0	19355	19066	18777	18662
	-10.0	22082	21794	21505	19918
	-5.0	24810	24522	22515	19918
	0.0	27538	27249	22515	19918
	2.5	28902	28000	22515	19918
	6.0	29155	28000	22515	19918
	7.5	30380	28000	22515	19918
	10.0	32422	28000	22515	19918
	12.5	34465	28000	22515	19918
	15.5	34928	28000	22515	19918

2-7.Cooling Capacity (In combination with PQRY-P200·250YMF-B)

PEFY-P-VML-A,VMH-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Water temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚C	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	10	1914	1604	1980	1664	2105	1649	2200	1697	2229	1752	2354	1727	2486	1699
	20	1844	1572	1908	1632	2029	1617	2120	1665	2148	1721	2268	1696	2396	1669
	30	1740	1525	1800	1584	1914	1570	2000	1619	2026	1674	2140	1651	2260	1625
	40	1514	1424	1566	1483	1665	1470	1740	1519	1763	1576	1862	1554	1966	1531
	45	1427	1386	1476	1445	1569	1432	1640	1482	1661	1538	1755	1518	1853	1496
25	10	2393	1880	2475	1944	2632	1927	2750	1977	2786	2036	2943	2005	3108	1971
	20	2306	1839	2385	1903	2536	1886	2650	1936	2684	1995	2836	1965	2995	1932
	30	2175	1777	2250	1841	2393	1825	2500	1876	2533	1935	2675	1906	2825	1875
	40	1892	1647	1958	1711	2081	1695	2175	1747	2203	1807	2327	1782	2458	1754
	45	1784	1598	1845	1661	1962	1647	2050	1699	2077	1759	2194	1735	2317	1708
32	10	3015	2310	3119	2386	3316	2365	3465	2423	3510	2492	3708	2453	3915	2411
	20	2905	2257	3005	2333	3195	2312	3339	2371	3382	2440	3573	2402	3773	2361
	30	2741	2178	2835	2254	3015	2234	3150	2293	3191	2362	3371	2327	3560	2288
	40	2384	2012	2466	2087	2623	2068	2741	2129	2776	2199	2932	2167	3097	2133
	45	2247	1949	2325	2024	2472	2006	2583	2067	2617	2138	2764	2107	2919	2074
40	10	3828	2873	3960	2964	4211	2938	4400	3007	4457	3088	4708	3040	4972	2988
	20	3689	2804	3816	2895	4058	2870	4240	2939	4295	3021	4537	2974	4791	2923
	30	3480	2703	3600	2793	3828	2769	4000	2839	4052	2921	4280	2877	4520	2828
	40	3028	2489	3132	2579	3330	2556	3480	2628	3525	2711	3724	2672	3932	2628
	45	2854	2409	2952	2498	3139	2476	3280	2549	3323	2632	3510	2595	3706	2554
50	10	4785	3390	4950	3486	5264	3458	5500	3525	5572	3607	5885	3549	6215	3485
	20	4611	3300	4770	3395	5072	3367	5300	3435	5369	3518	5671	3461	5989	3399
	30	4350	3165	4500	3260	4785	3233	5000	3302	5065	3385	5350	3331	5650	3272
	40	3785	2884	3915	2977	4163	2951	4350	3023	4407	3107	4655	3060	4916	3007
	45	3567	2778	3690	2872	3924	2847	4100	2919	4153	3004	4387	2958	4633	2908
63	10	6029	4423	6237	4557	6632	4519	6930	4618	7020	4737	7415	4662	7831	4579
	20	5810	4313	6010	4447	6391	4409	6678	4509	6765	4628	7145	4556	7546	4476
	30	5481	4150	5670	4284	6029	4247	6300	4348	6382	4468	6741	4399	7119	4323
	40	4768	3807	4933	3939	5245	3905	5481	4009	5552	4131	5865	4069	6194	4002
	45	4494	3678	4649	3810	4944	3777	5166	3882	5233	4004	5528	3945	5838	3881
71	10	6795	4946	7029	5093	7474	5051	7810	5159	7912	5289	8357	5205	8825	5113
	20	6548	4821	6773	4968	7202	4926	7526	5035	7624	5166	8053	5084	8504	4995
	30	6177	4636	6390	4783	6795	4742	7100	4852	7192	4984	7597	4906	8023	4821
	40	5374	4247	5559	4392	5911	4354	6177	4467	6257	4601	6609	4532	6980	4456
	45	5065	4101	5240	4246	5572	4208	5822	4324	5898	4458	6230	4392	6579	4320
80	10	7656	5598	7920	5767	8422	5718	8800	5842	8914	5992	9416	5897	9944	5792
	20	7378	5458	7632	5626	8115	5578	8480	5704	8590	5853	9074	5762	9582	5660
	30	6960	5251	7200	5418	7656	5372	8000	5499	8104	5649	8560	5562	9040	5466
	40	6055	4814	6264	4980	6661	4936	6960	5067	7050	5220	7447	5142	7865	5056
	45	5707	4650	5904	4816	6278	4774	6560	4905	6645	5059	7019	4985	7413	4903
100	10	9570	7526	9900	7782	10527	7714	11000	7913	11143	8148	11770	8025	12430	7891
	20	9222	7360	9540	7616	10144	7549	10600	7750	10738	7986	11342	7866	11978	7736
	30	8700	7115	9000	7370	9570	7305	10000	7509	10130	7745	10700	7631	11300	7507
	40	7569	6595	7830	6849	8326	6789	8700	6997	8813	7236	9309	7134	9831	7023
	45	7134	6399	7380	6653	7847	6594	8200	6805	8307	7044	8774	6947	9266	6841
125	10	11963	8712	12375	8972	13159	8897	13750	9088	13929	9317	14713	9170	15538	9007
	20	11528	8492	11925	8752	12680	8677	13250	8870	13422	9101	14178	8957	14973	8799
	30	10875	8167	11250	8425	11963	8353	12500	8548	12663	8780	13375	8644	14125	8494
	40	9461	7482	9788	7738	10407	7670	10875	7871	11016	8106	11636	7985	12289	7852
	45	8918	7225	9225	7481	9809	7415	10250	7618	10383	7854	10968	7738	11583	7612
140	10	13398	9820	13860	10118	14738	10032	15400	10252	15600	10516	16478	10349	17402	10165
	20	12911	9576	13356	9873	14202	9788	14840	10010	15033	10275	15879	10113	16769	9935
	30	12180	9214	12600	9510	13398	9427	14000	9652	14182	9918	14980	9764	15820	9595
	40	10597	8450	10962	8744	11656	8667	12180	8898	12338	9168	13033	9031	13763	8881
	45	9988	8164	10332	8457	10986	8382	11480	8616	11629	8887	12284	8756	12972	8613
200	10	19140	14246	19800	14692	21054	14565	22000	14898	22286	15296	23540	15055	24860	14791
	20	18444	13902	19080	14346	20288	14221	21200	14557	21476	14957	22684	14723	23956	14467
	30	17400	13392	18000	13834	19140	13713	20000	14053	20260	14455	21400	14232	22600	13989
	40	15138	12314	15660	12753	16652	12640	17400	12990	17626	13397	18618	13198	19662	12982
	45	14268	11909	14760	12348	15695	12238	16400	12591	16613	13000	17548	12810	18532	12604
250	10	23925	17720	24750	18269	26318	18112	27500	18520	27858	19010	29425	18710	31075	18380
	20	23055	17288	23850	17835	25361	17680	26500	18092	26845	18584	28355	18293	29945	17973
	30	21750	16647	22500	17192	23925	17042	25000	17459	25325	17954	26750	17676	28250	17373
	40	18923	15295	19575	15836	20815	15696	21750	16125	22033	16626	23273	16378	24578	16108
	45	17835	14788	18450	15328	19619	15192	20500	15625	20767	16128	21935	15892	23165	15635

2-8.Heating Capacity (In combination with PQRY-P200·250YMF-B)

PEFY-P-VML-A,VMH-A

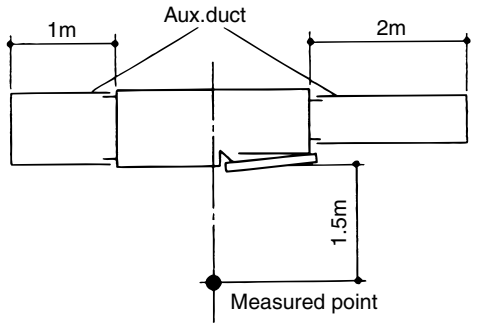
SHC:Sensible heat Capacity(kcal/h)

Unit size	Water temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚C	SHC	SHC	SHC	SHC
20	10	1951	1913	1549	1377
	20	2295	2250	1823	1620
	30	2295	2250	1823	1620
	40	2387	2340	1895	1685
	45	2616	2565	2078	1847
25	10	2428	2380	1928	1714
	20	2856	2800	2268	2016
	30	2856	2800	2268	2016
	40	2970	2912	2359	2097
	45	3256	3192	2586	2298
32	10	3078	3018	2444	2173
	20	3621	3550	2876	2556
	30	3621	3550	2876	2556
	40	3766	3692	2991	2658
	45	4128	4047	3278	2914
40	10	3902	3825	3098	2754
	20	4590	4500	3645	3240
	30	4590	4500	3645	3240
	40	4774	4680	3791	3370
	45	5233	5130	4155	3694
50	10	4855	4760	3856	3427
	20	5712	5600	4536	4032
	30	5712	5600	4536	4032
	40	5940	5824	4717	4193
	45	6512	6384	5171	4596
63	10	6156	6035	4888	4345
	20	7242	7100	5751	5112
	30	7242	7100	5751	5112
	40	7532	7384	5981	5316
	45	8256	8094	6556	5828
71	10	6936	6800	5508	4896
	20	8160	8000	6480	5760
	30	8160	8000	6480	5760
	40	8486	8320	6739	5990
	45	9302	9120	7387	6566
80	10	7803	7650	6197	5508
	20	9180	9000	7290	6480
	30	9180	9000	7290	6480
	40	9547	9360	7582	6739
	45	10465	10260	8311	7387
100	10	9710	9520	7711	6854
	20	11424	11200	9072	8064
	30	11424	11200	9072	8064
	40	11881	11648	9435	8387
	45	13023	12768	10342	9193
125	10	12138	11900	9639	8568
	20	14280	14000	11340	10080
	30	14280	14000	11340	10080
	40	14851	14560	11794	10483
	45	16279	15960	12928	11491
140	10	13872	13600	11016	9792
	20	16320	16000	12960	11520
	30	16320	16000	12960	11520
	40	16973	16640	13478	11981
	45	18605	18240	14774	13133
200	10	19421	19040	15422	13709
	20	22848	22400	18144	16128
	30	22848	22400	18144	16128
	40	23762	23296	18870	16773
	45	26047	25536	20684	18386
250	10	24276	23800	19278	17136
	20	28560	28000	22680	20160
	30	28560	28000	22680	20160
	40	29702	29120	23587	20966
	45	32558	31920	25855	22982

3. Sound levels

3-1. Noise level(VML-A)

① Rear inlet model1



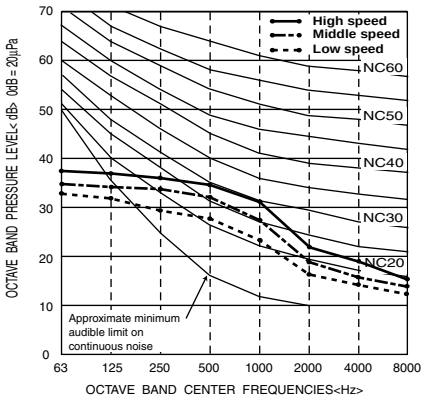
Noise level at anechoic room (Low-Mid-High) Unit : dB(A)

Model	Noise level (A weighted)
PEFY-P20VML-A PEFY-P25VML-A	29-33-36
PEFY-P32VML-A	30-35-40

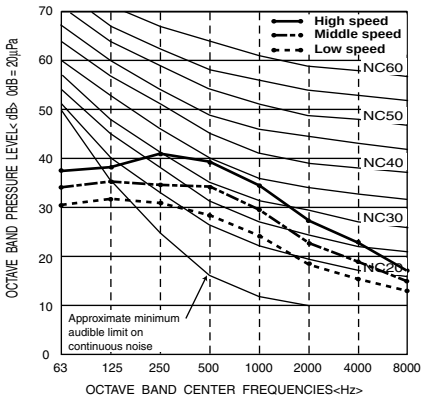
PEFY-P-VML-A/VMH-A

3-2. NC curves(VML-A)

PEFY-P20,25VML-A

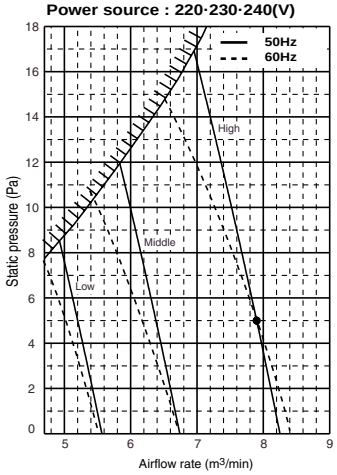


PEFY-P32VML-A

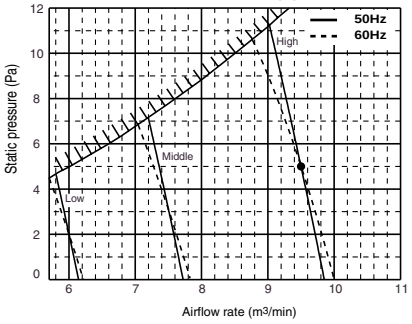


3-3. Fan characteristics curves(VML-A)

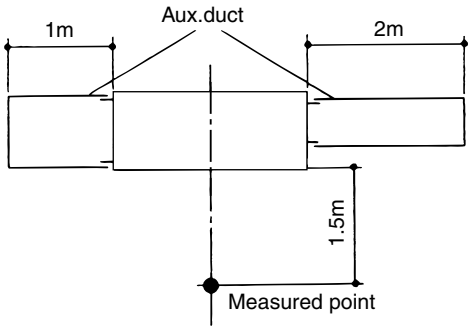
PEFY-P20,25VML-A
External static pressure : 5Pa
Power source : 220·230·240(V)



PEFY-P32VML-A
External static pressure : 5Pa
Power source : 220·230·240(V)



3-4. Noise level(VMH-A)



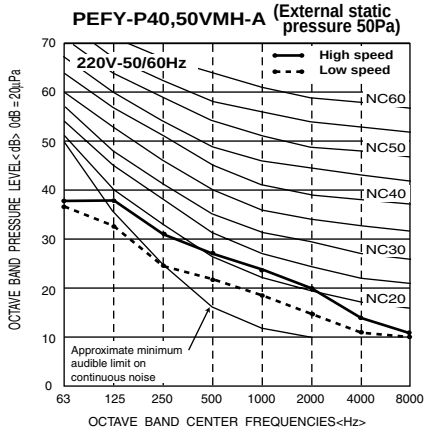
※ PEFY-P40~140VMH-A
Low : 50Pa (at 220V) / 100Pa (at 230, 240V)
Mid : 100Pa (at 220V) / 150Pa (at 230, 240V)
High : 200Pa (at 220, 230, 240V)

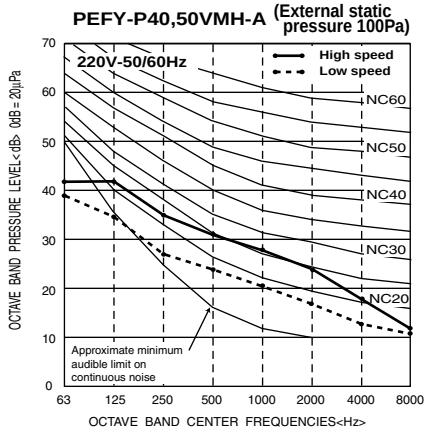
※ PEFY-P200, 250VMH-A
Low : 110Pa (at 380V) / 130Pa (at 400, 415V)
High : 220Pa (at 380V) / 260Pa (at 400, 415V)

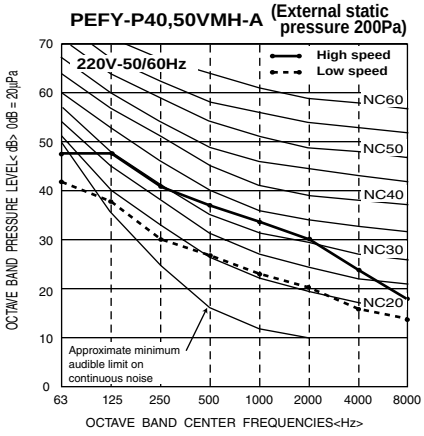
Noise level at anechoic room (Low-High) Unit : dB(A)

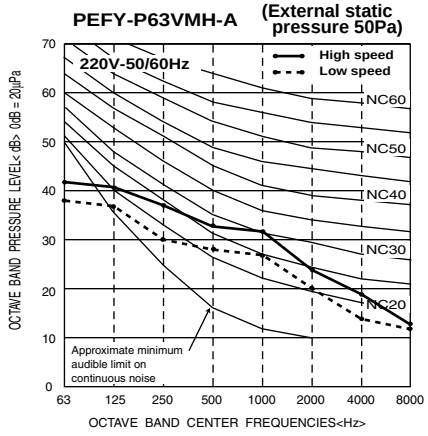
Model		External static pressure※		
		Low	Mid	High
PEFY-P40, 50 VMH-A	220V	25-30	27-34	30-40
	230, 240V	30-34	31-37	31-41
PEFY-P63VMH-A	220V	31-36	32-38	36-43
	230, 240V	35-39	36-41	38-44
PEFY-P71VMH-A	220V	30-36	32-39	35-43
	230, 240V	34-39	35-41	37-44
PEFY-P80VMH-A	220V	32-39	35-41	37-43
	230, 240V	37-41	38-43	39-45
PEFY-P100, 125, 140VMH-A	220V	32-40	34-42	36-46
	230, 240V	36-42	38-44	38-47
PEFY-P200VMH-A	380V	42	–	45
	400, 415V	44	–	47
PEFY-P250VMH-A	380V	50	–	52
	400, 415V	52	–	54

3-5. NC curves(VMH-A)

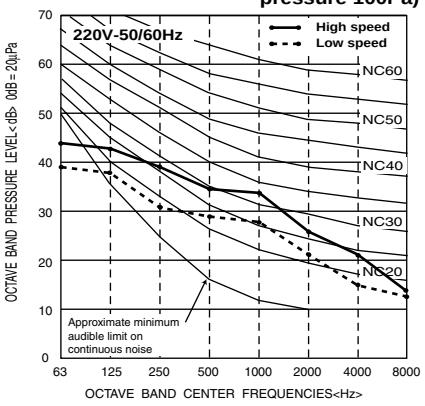




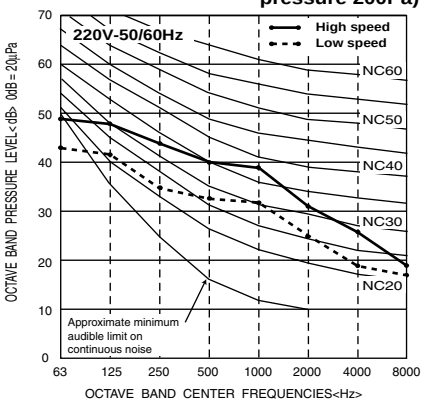




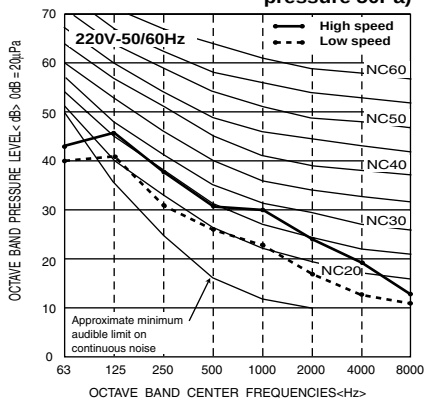
PEFY-P63VMH-A (External static pressure 100Pa)



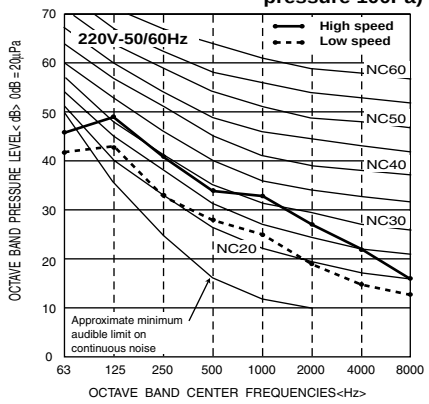
PEFY-P63VMH-A (External static pressure 200Pa)



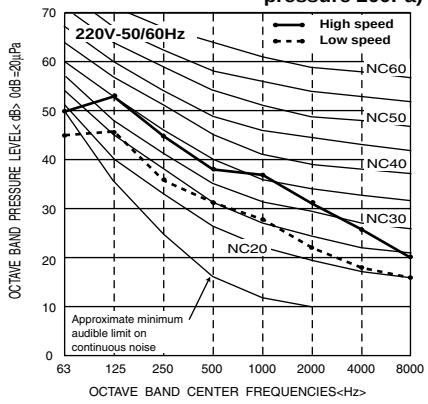
PEFY-P71VMH-A (External static pressure 50Pa)



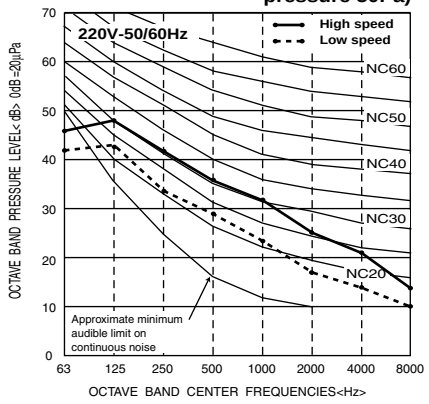
PEFY-P71VMH-A (External static pressure 100Pa)



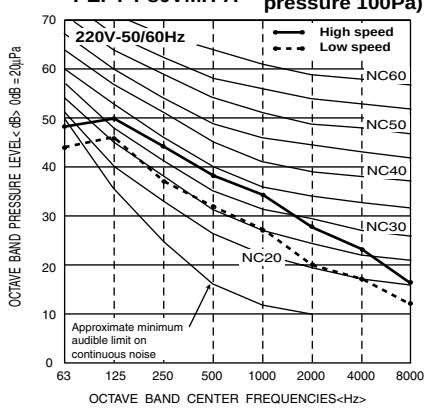
PEFY-P71VMH-A (External static pressure 200Pa)



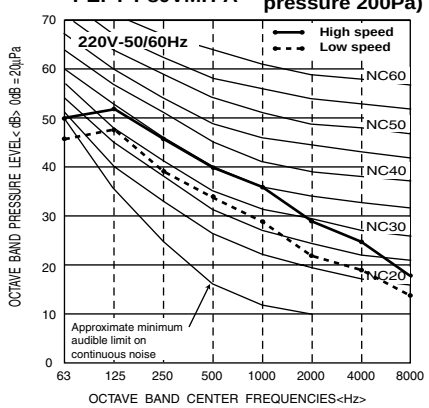
PEFY-P80VMH-A (External static pressure 50Pa)



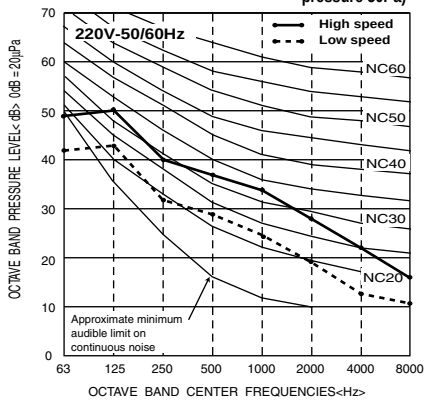
PEFY-P80VMH-A (External static pressure 100Pa)



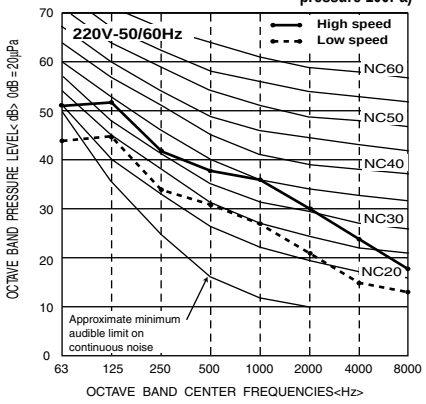
PEFY-P80VMH-A (External static pressure 200Pa)



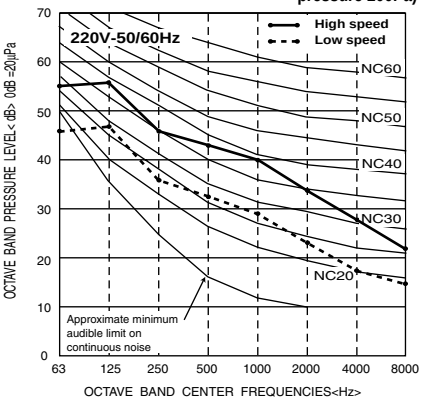
PEFY-P100,125,140VMH-A (External static pressure 50Pa)



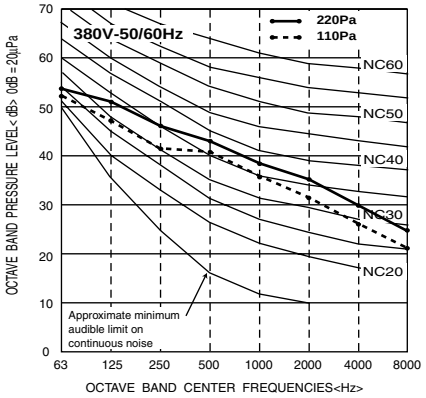
PEFY-P100,125,140VMH-A (External static pressure 100Pa)



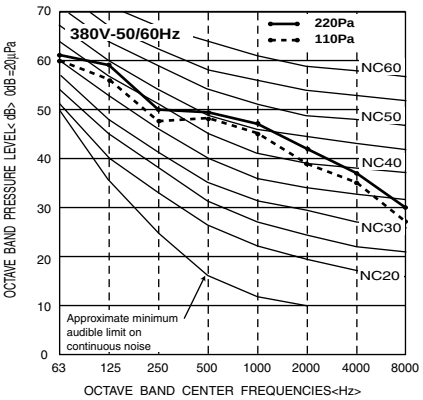
PEFY-P100,125,140VMH-A (External static pressure 200Pa)



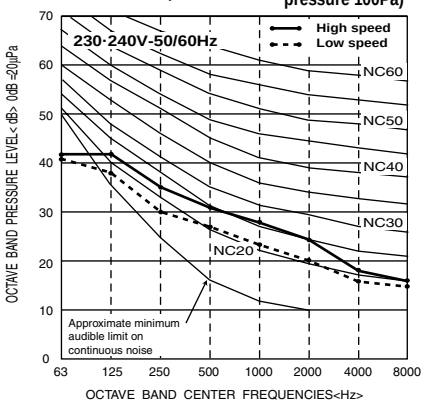
PEFY-P200VMH-A



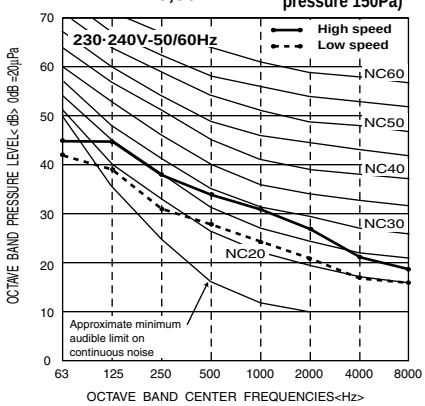
PEFY-P250VMH-A



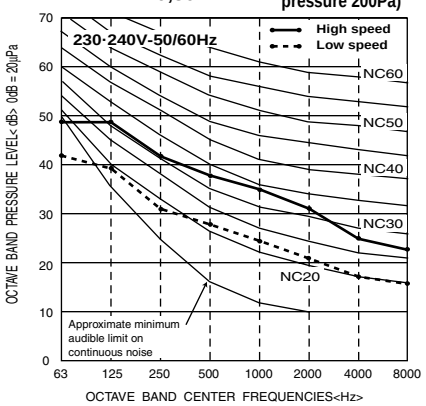
PEFY-P40,50VMH-A (External static pressure 100Pa)



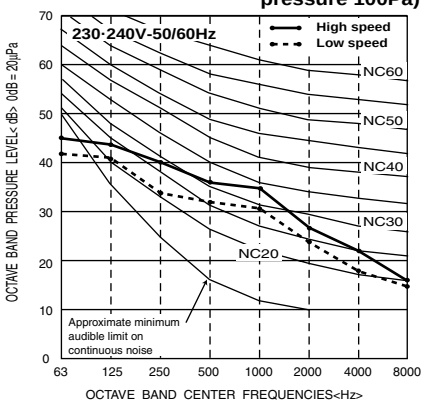
PEFY-P40,50VMH-A (External static pressure 150Pa)



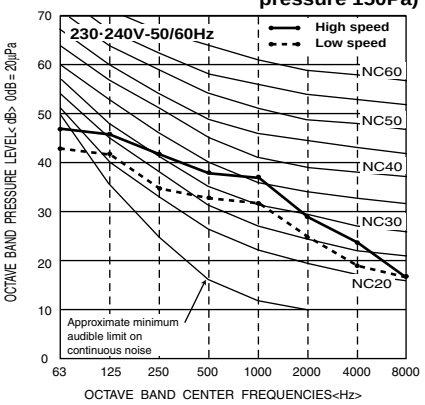
PEFY-P40,50VMH-A (External static pressure 200Pa)



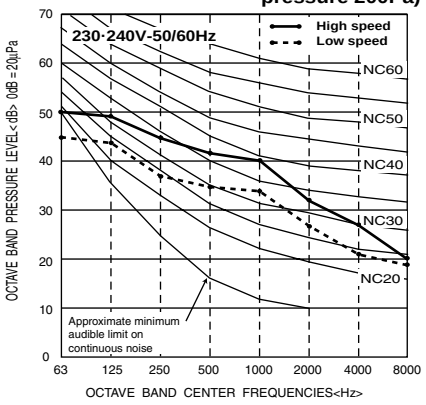
PEFY-P63VMH-A (External static pressure 100Pa)



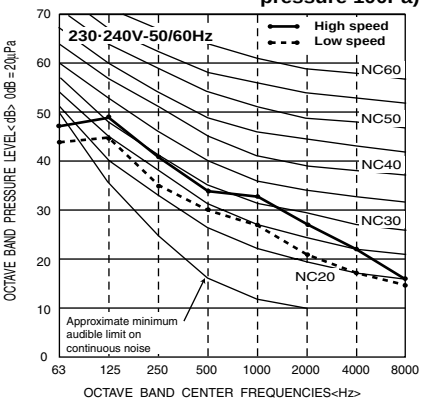
PEFY-P63VMH-A (External static pressure 150Pa)



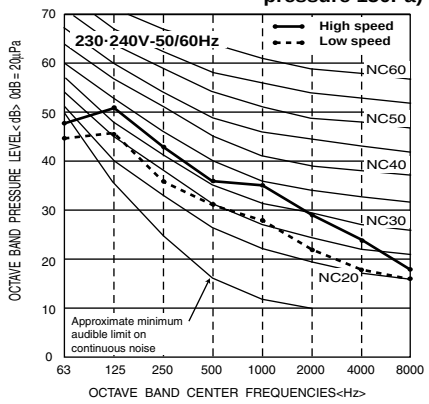
PEFY-P63VMH-A (External static pressure 200Pa)



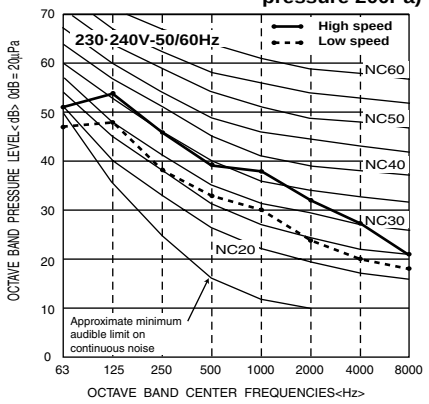
PEFY-P71VMH-A (External static pressure 100Pa)



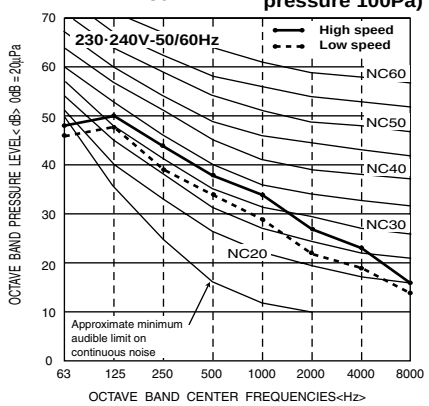
PEFY-P71VMH-A (External static pressure 150Pa)



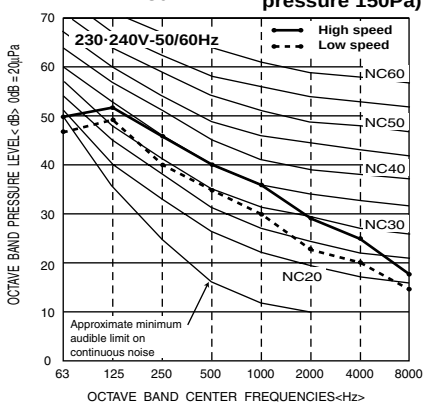
PEFY-P71VMH-A (External static pressure 200Pa)



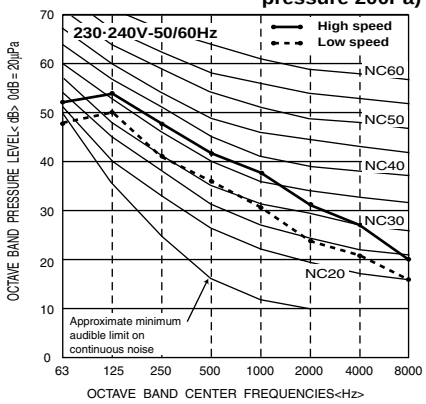
PEFY-P80VMH-A (External static pressure 100Pa)



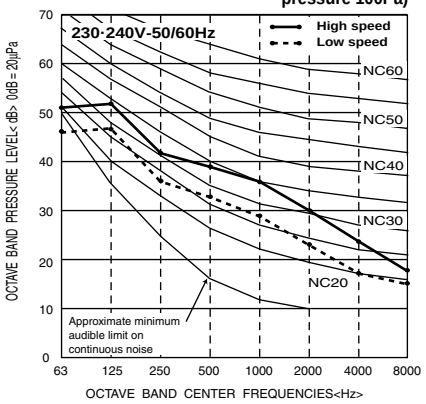
PEFY-P80VMH-A (External static pressure 150Pa)



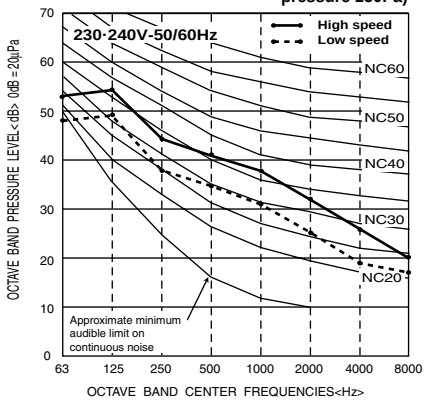
PEFY-P80VMH-A (External static pressure 200Pa)



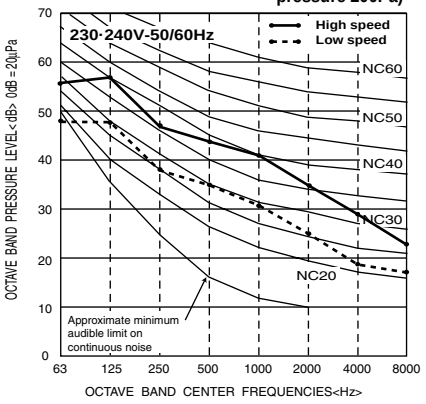
PEFY-P100,125,140VMH-A (External static pressure 100Pa)



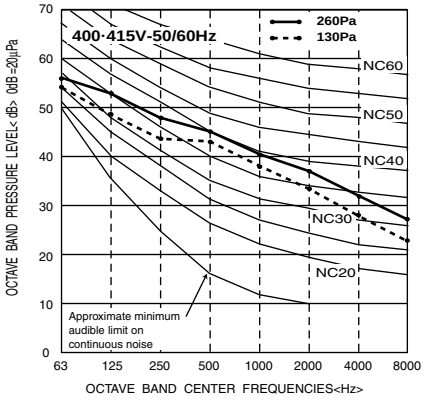
PEFY-P100,125,140VMH-A (External static pressure 150Pa)



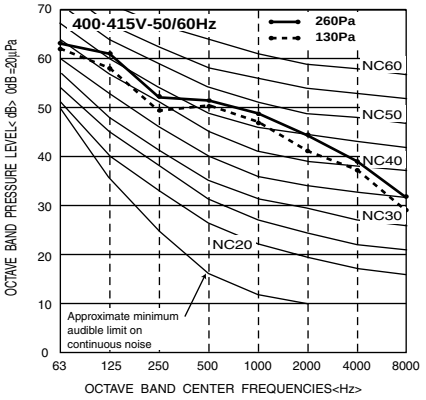
PEFY-P100,125,140VMH-A (External static pressure 200Pa)



PEFY-P200VMH-A

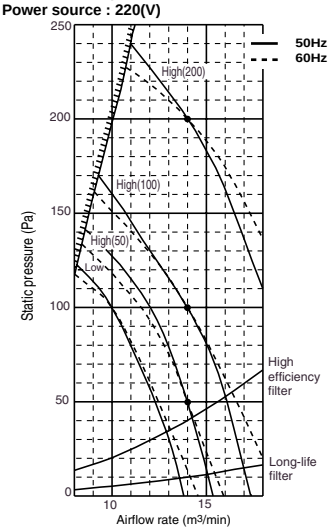


PEFY-P250VMH-A

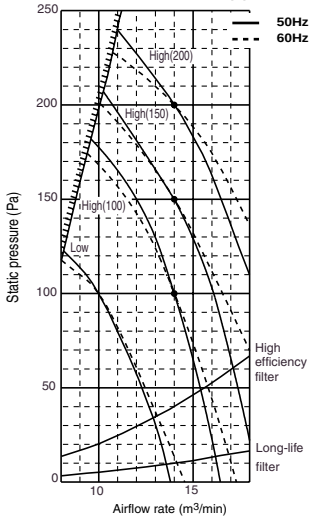


3-6. Fan characteristics curves(VMH-A)

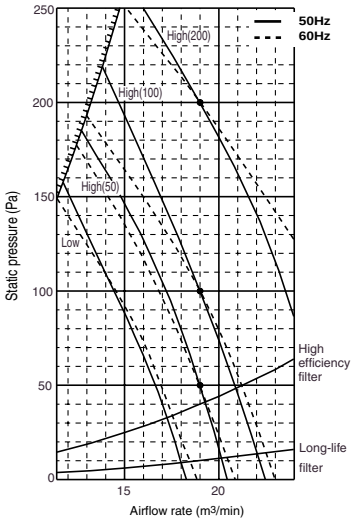
PEFY-P40,50VMH-A
Suction : Back inlet
External static pressure : 50,100,200Pa
Power source : 220(V)



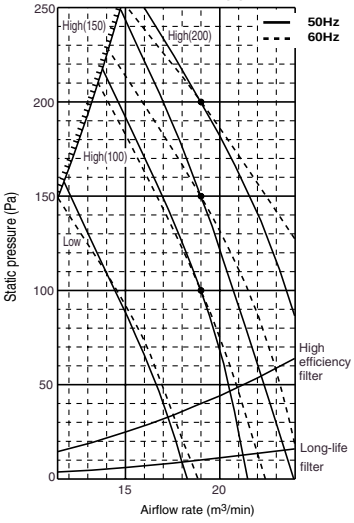
PEFY-P40,50VMH-A
Suction : Back inlet
External static pressure : 100,150,200Pa
Power source : 230,240(V)



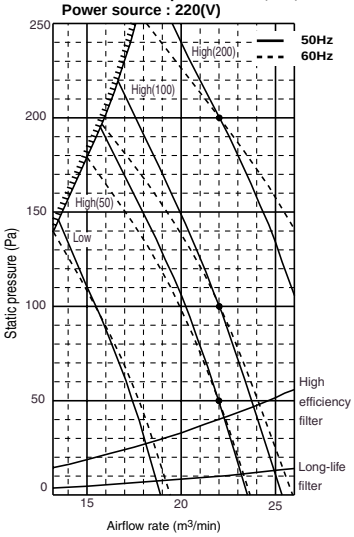
PEFY-P63VMH-A
Suction : Back inlet
External static pressure : 50,100,200Pa
Power source : 220(V)



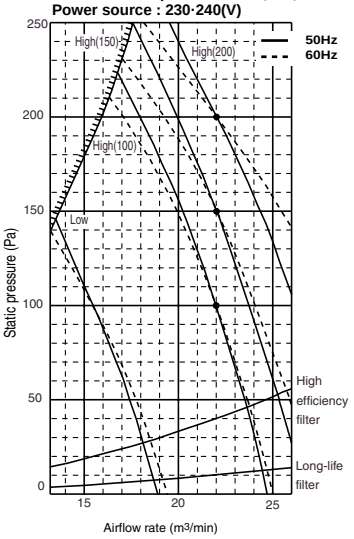
PEFY-P63VMH-A
Suction : Back inlet
External static pressure : 100,150,200Pa
Power source : 230·240(V)



PEFY-P71VMH-A
Suction : Back inlet
External static pressure : 50,100,200Pa
Power source : 220(V)

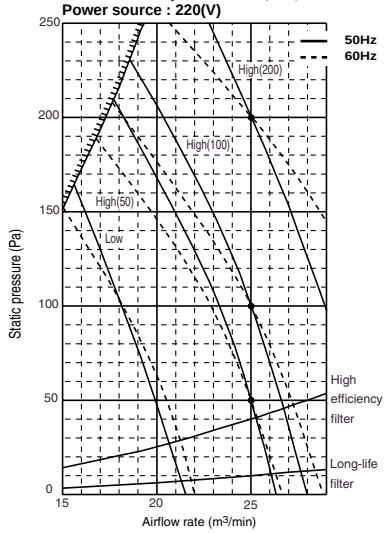


PEFY-P71VMH-A
Suction : Back inlet
External static pressure : 100,150,200Pa
Power source : 230·240(V)



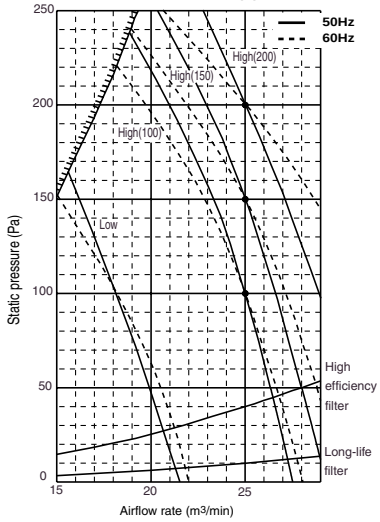
PEFY-P80VMH-A

Suction : Back inlet
External static pressure : 50,100,200Pa
Power source : 220(V)



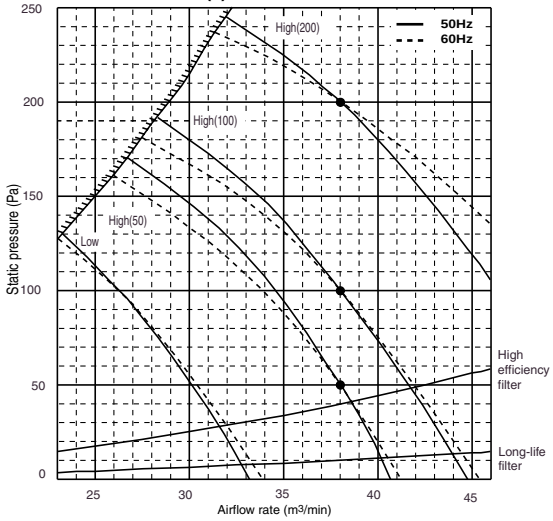
PEFY-P80VMH-A

Suction : Back inlet
External static pressure : 100,150,200Pa
Power source : 230·240(V)



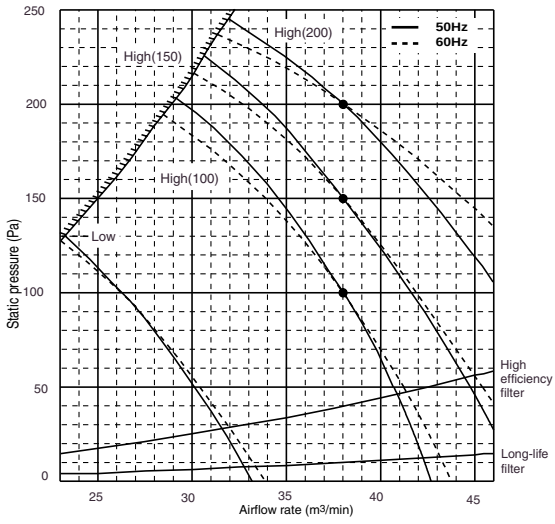
PEFY-P100·125VMH-A

Suction : Back inlet
External static pressure : 50,100,200Pa
Power source : 220(V)



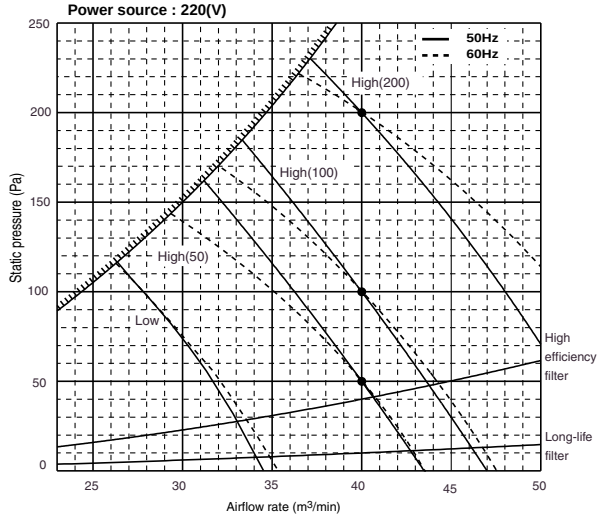
PEFY-P100·125VMH-A

Suction : Back inlet
External static pressure : 100,150,200Pa
Power source : 230·240(V)



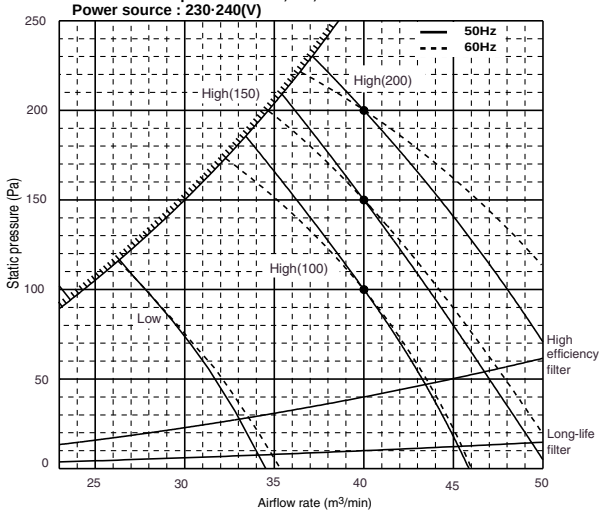
PEFY-P140VMH-A

Suction : Back inlet
External static pressure : 50,100,200Pa
Power source : 220(V)



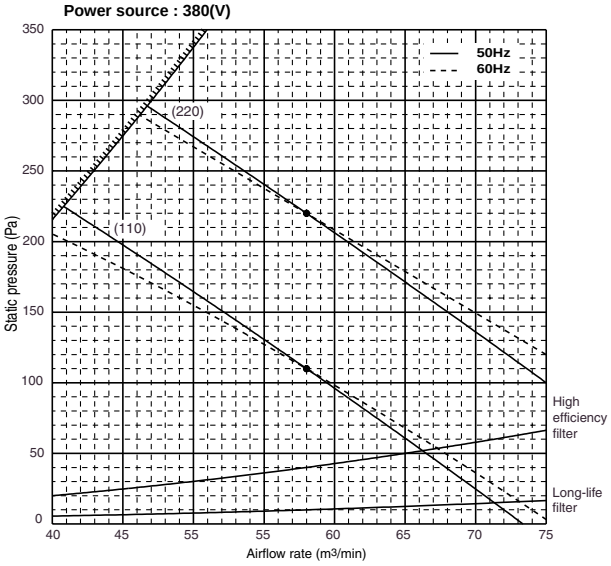
PEFY-P140VMH-A

Suction : Back inlet
External static pressure : 100,150,200Pa
Power source : 230·240(V)



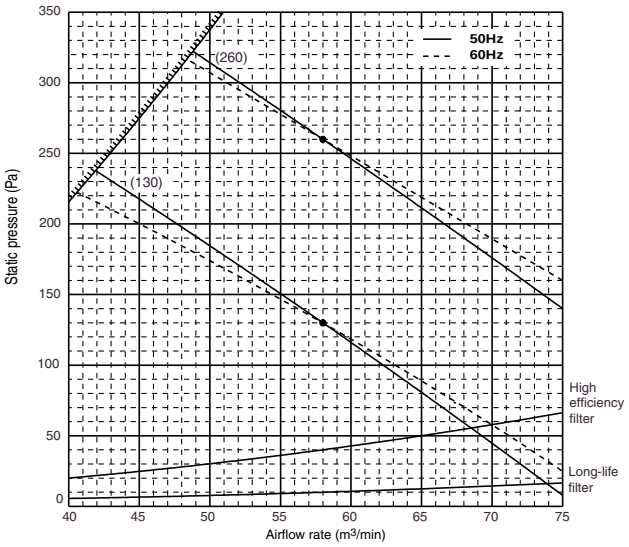
PEFY-P200VMH-A

Suction : Back inlet
External static pressure : 110,220Pa
Power source : 380(V)



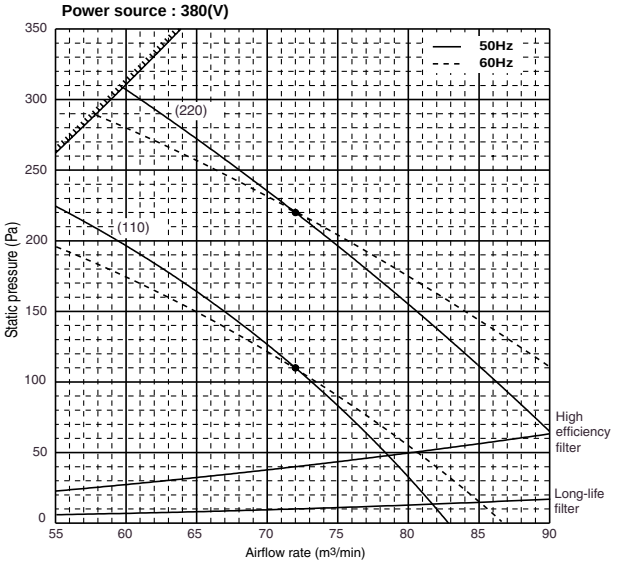
PEFY-P200VMH-A

Suction : Back inlet
External static pressure : 130,260Pa
Power source : 400·415(V)



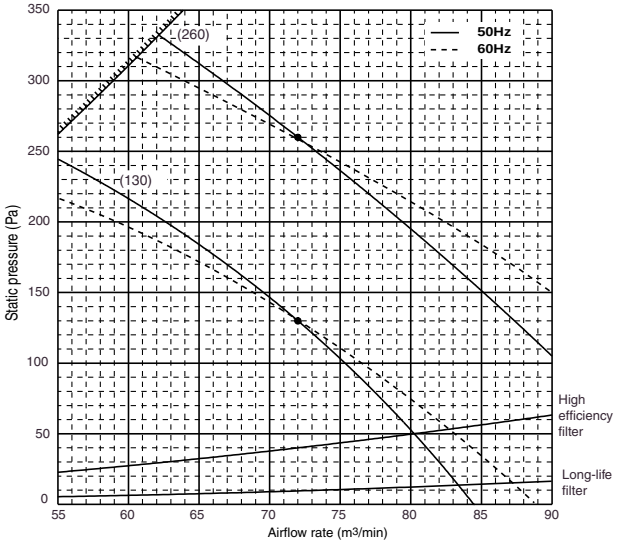
PEFY-P250VMH-A

Suction : Back inlet
External static pressure : 110,220Pa
Power source : 380(V)



PEFY-P250VMH-A

Suction : Back inlet
External static pressure : 130,260Pa
Power source : 400·415(V)



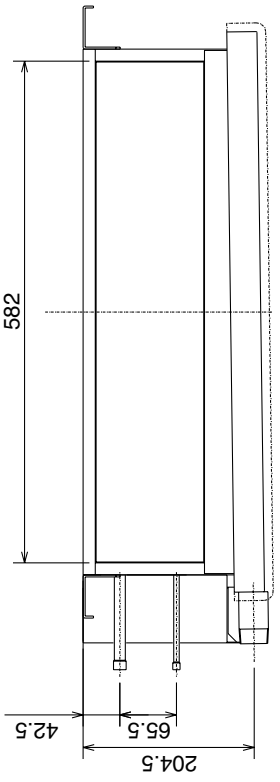
4. External Dimensions

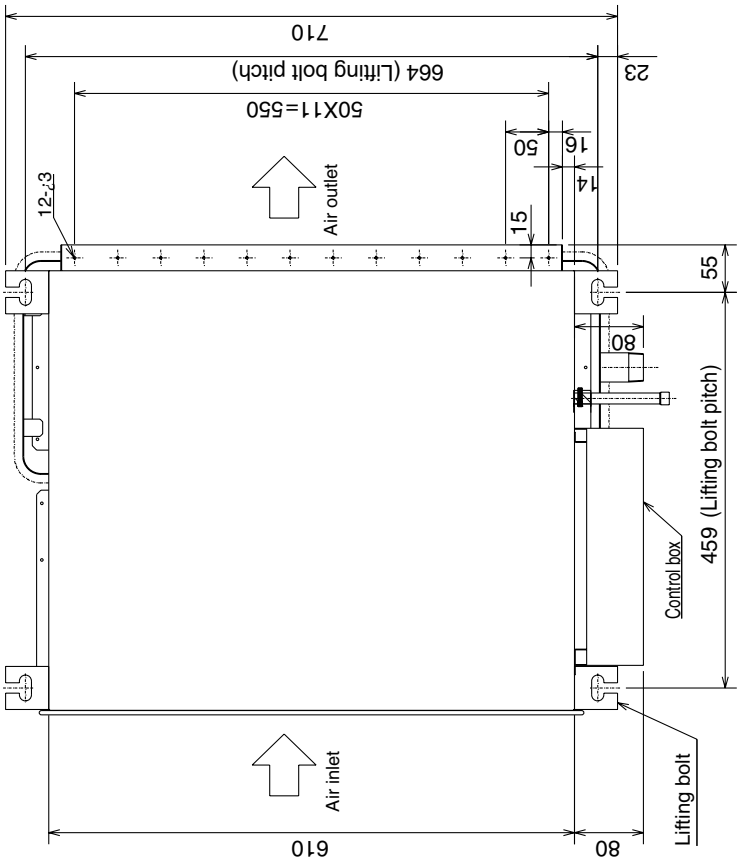
PEFY-P20,25,32VML-A

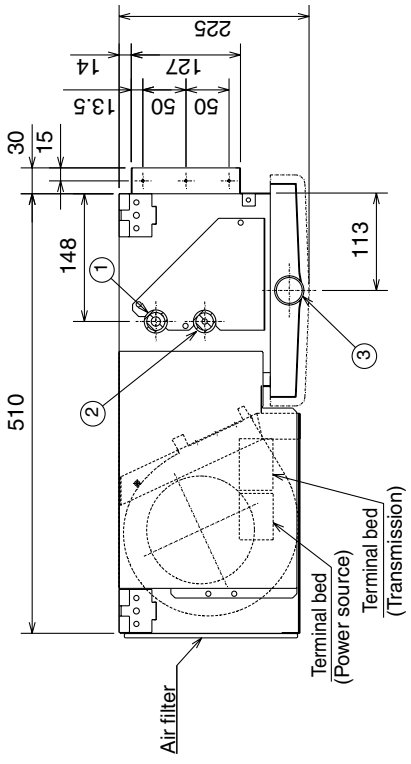
Unit : mm

Note1. Use M10 screw for the lifting bolt (field supply).
2. Keep the service space for the maintenance from the bottom when the heat exchanger is cleaned.

Refrigerant piping brazing connection (gas ø12.7 copper tube): HP ..... ①
Refrigerant piping brazing connection (liquid ø6.35 copper tube): LP .... ②
Drain piping connection R1 (External thread) ..... ③

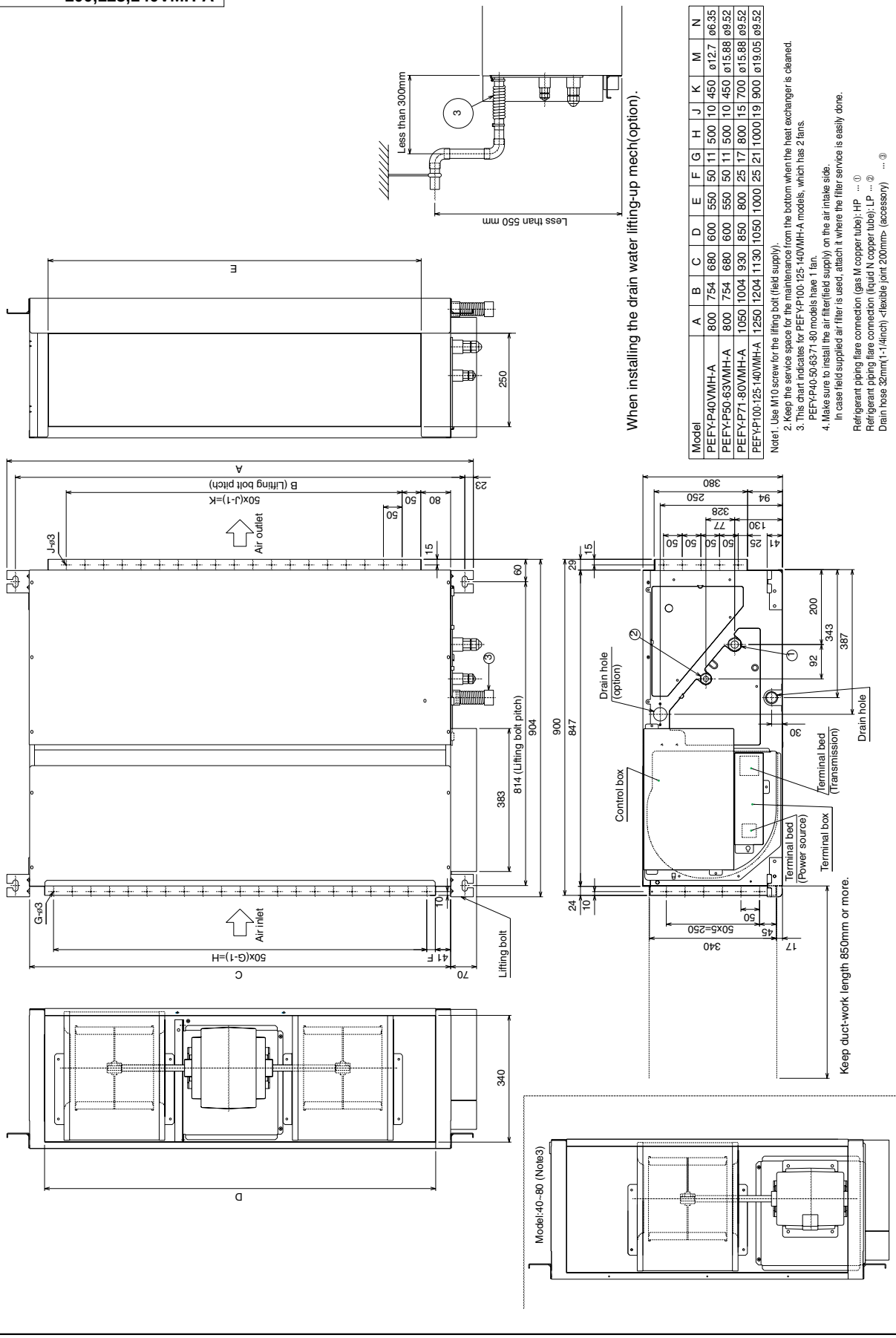






PEFY-P40,50,63,71,80,
100,125,140VMH-A

Unit : mm



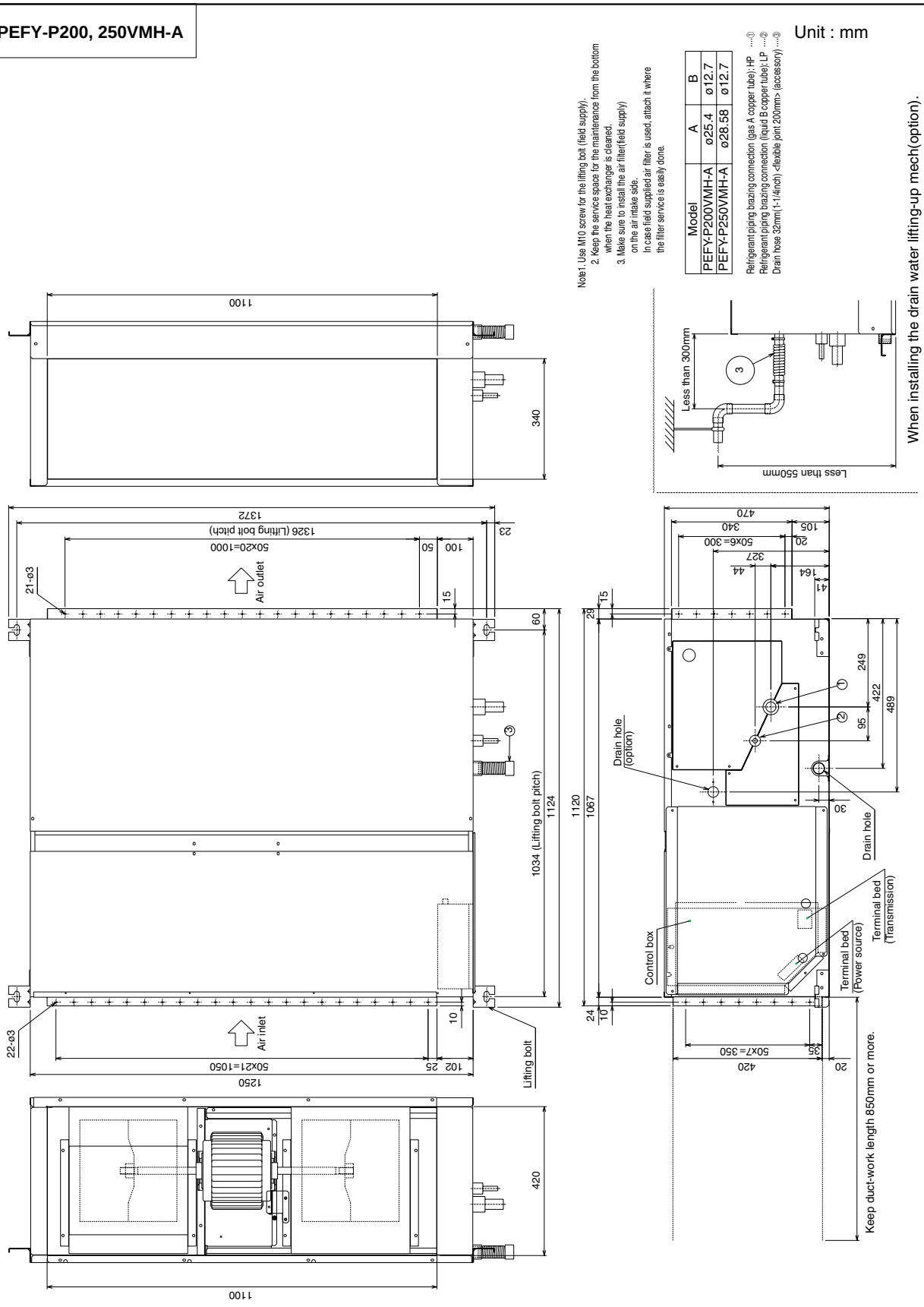
Model	A	B	C	D	E	F	G	H	J	K	M	N
PEFY-P40VMH-A	800	754	680	600	550	50	111	500	10	450	ø12.7	ø6.35
PEFY-P50·63VMH-A	800	754	680	600	550	50	111	500	10	450	ø15.88	ø9.52
PEFY-P71·80VMH-A	1050	1004	930	850	800	25	17	800	15	700	ø15.88	ø9.52
PEFY-P100·125·140VMH-A	1250	1204	1130	1050	1000	25	21	1000	19	900	ø19.05	ø9.52

Note1. Use M10 screw for the lifting bolt (field supply).
2. Keep the service space for the maintenance from the bottom when the heat exchanger is cleaned.
3. This chart indicates for PEFY-P100·125·140VMH-A models, which has 2 fans.
PEFY-P40·50·63·71·80 models have 1 fan.
4. Make sure to install the air filter(field supply) on the air intake side.
In case field supplied air filter is used, attach it where the filter service is easily done.

Refrigerant piping flare connection (gas M copper tube): HP ... ①
Refrigerant piping flare connection (liquid N copper tube): LP ... ②
Drain hose 32mm(1-1/4inch) <flexible joint 200mm> (accessory) ... ③

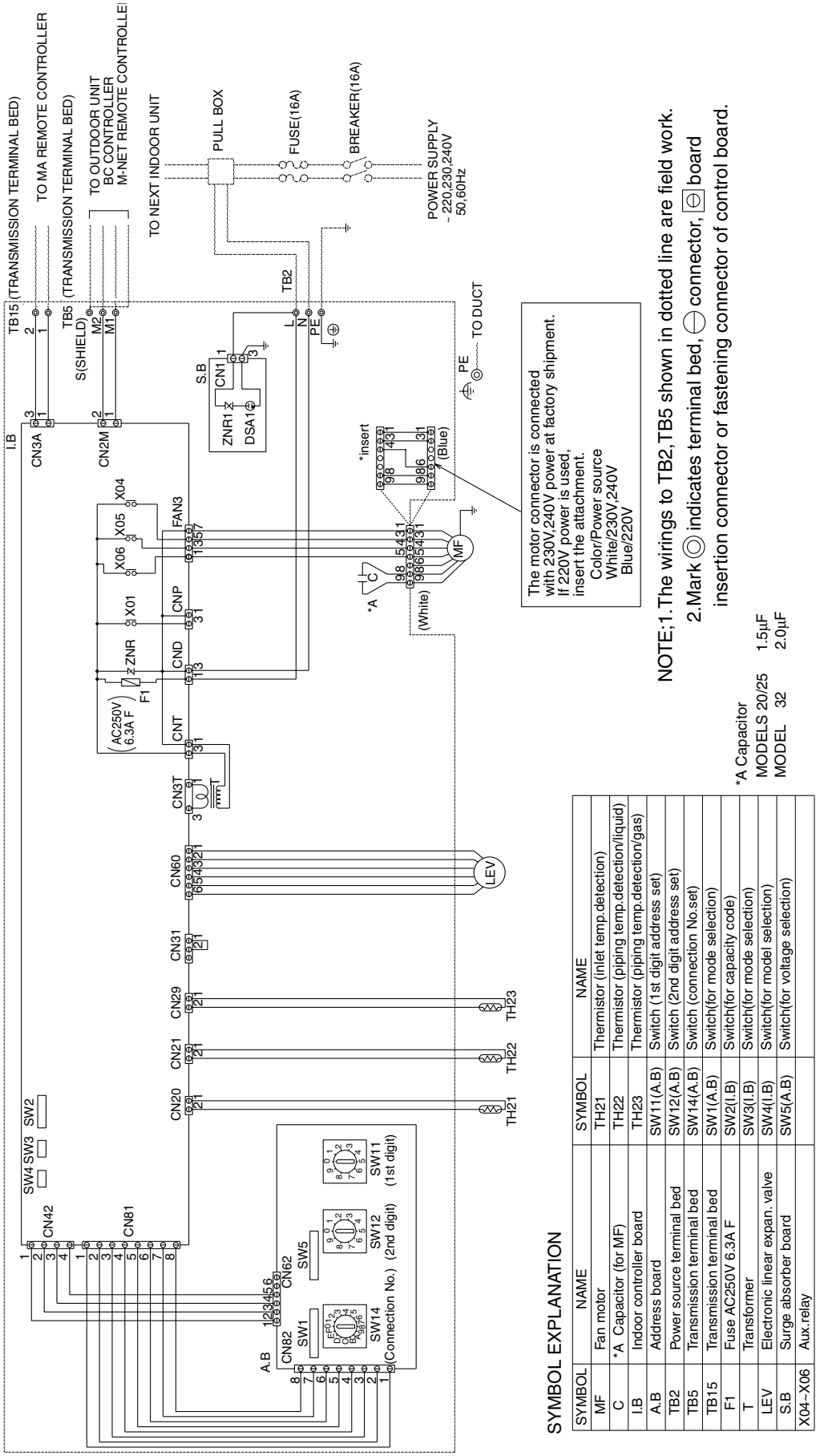
PEFY-P200, 250VMH-A

Unit : mm



5. Electrical Wiring Diagrams

PEFY-P20~32VML-A

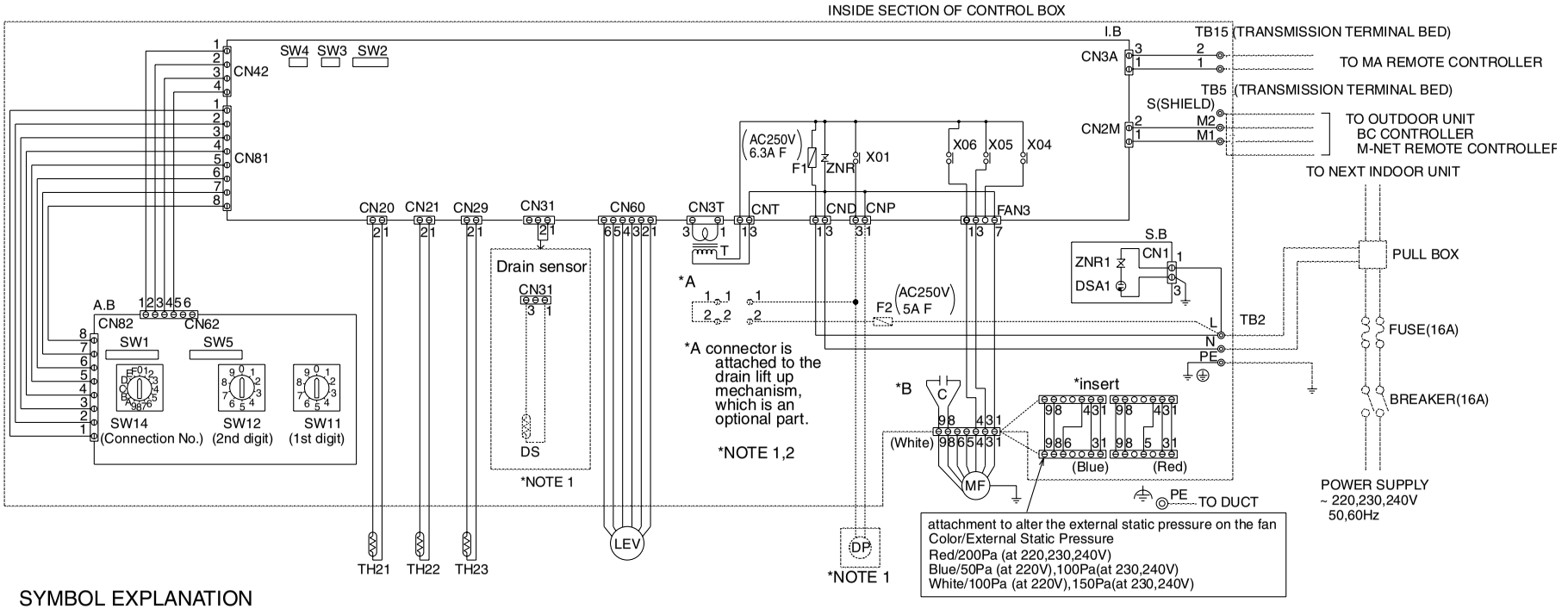


NOTE;1.The wirings to TB2,TB5 shown in dotted line are field work.
2.Mark ◎ indicates terminal bed, ⊖ connector, ⊟ board insertion connector or fastening connector of control board.

*A Capacitor
MODELS 20/25 1.5μF
MODEL 32 2.0μF

SYMBOL EXPLANATION

SYMBOL	NAME	SYMBOL	NAME
MF	Fan motor	TH21	Thermistor (inlet temp.detection)
C	*A Capacitor (for MF)	TH22	Thermistor (piping temp.detection/liquid)
I.B	Indoor controller board	TH23	Thermistor (piping temp.detection/gas)
A.B	Address board	SW11(A.B)	Switch (1st digit address set)
TB2	Power source terminal bed	SW12(A.B)	Switch (2nd digit address set)
TB5	Transmission terminal bed	SW14(A.B)	Switch (connection No.set)
TB15	Transmission terminal bed	SW1(A.B)	Switch(for mode selection)
F1	Fuse AC250V 6.3A F	SW2(I.B)	Switch(for capacity code)
T	Transformer	SW3(I.B)	Switch(for mode selection)
LEV	Electronic linear expan. valve	SW4(I.B)	Switch(for model selection)
S.B	Surge absorber board	SW5(A.B)	Switch(for voltage selection)
X04~X06	Aux.relay		



SYMBOL EXPLANATION

SYMBOL	NAME	SYMBOL	NAME
MF	Fan motor	S.B	Surge absorber board
C	*B Capacitor (for MF)	TH21	Thermistor (inlet temp.detection)
I.B	Indoor controller board	TH22	Thermistor (piping temp.detection/liquid)
A.B	Address board	TH23	Thermistor (piping temp.detection/gas)
TB2	Power source terminal bed	SW11(A.B)	Switch (1st digit address set)
TB5	Transmission terminal bed	SW12(A.B)	Switch (2nd digit address set)
TB15	Transmission terminal bed	SW14(A.B)	Switch (connection No.set)
F1	Fuse AC250V 6.3A F	SW1(A.B)	Switch(for mode selection)
<F2>	Fuse AC250V 5A F	SW2(I.B)	Switch(for capacity code)
T	Transformer	SW3(I.B)	Switch(for mode selection)
<DP>	Drain Pump	SW4(I.B)	Switch(for model selection)
LEV	Electronic linear expan. valve	SW5(A.B)	Switch(for voltage selection)
<DS>	Drain sensor	X04~X06	Aux.relay

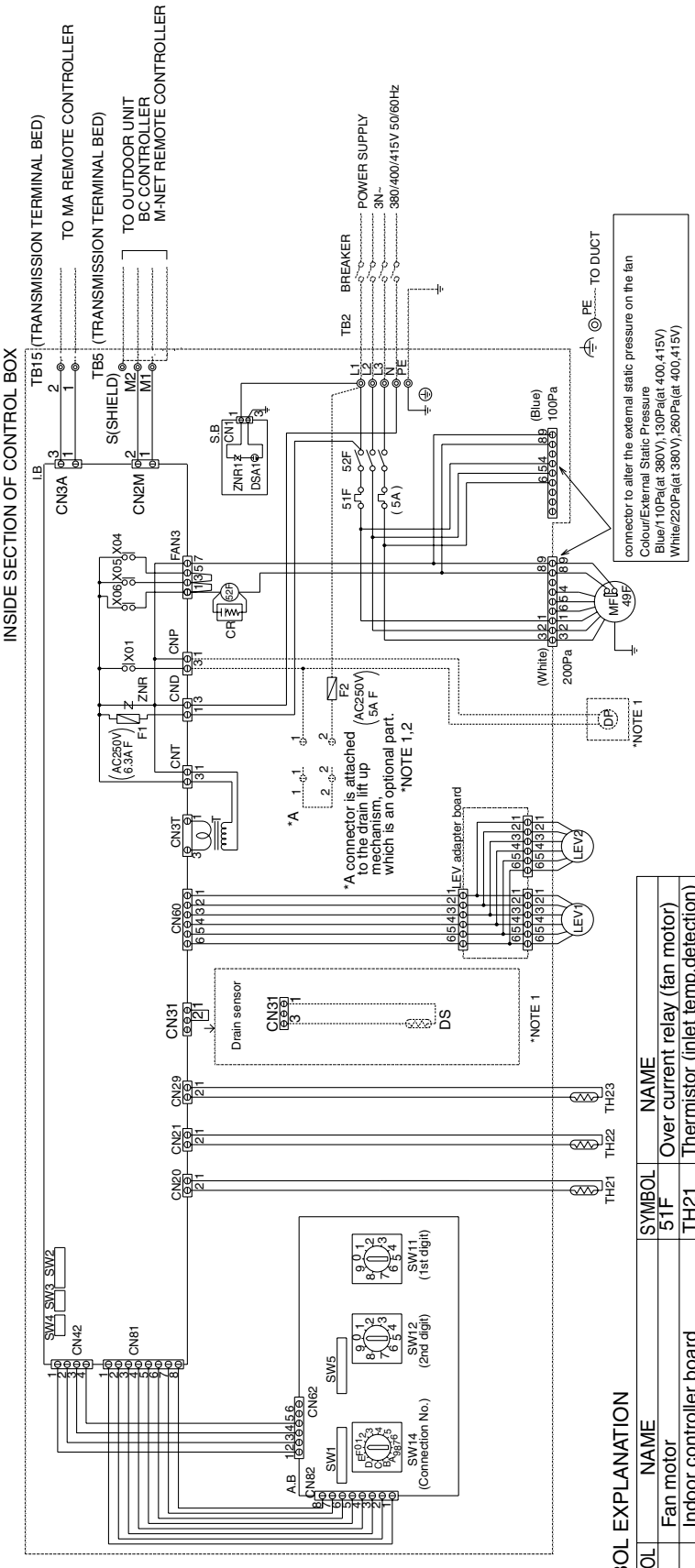
inside < > is the optional parts

*B Capacitor

MODELS 40/50	3.0μF
MODEL 63	4.0μF
MODELS 71/80	5.0μF
MODELS 100/125/140	7.0μF

NOTE;1. The part of the broken line indicates the circuit for optional parts.
2. *A in the chart is the connector for a drain pump test run operation.
(The Drain Pump operates continuously if the connector is inserted and the power is supplied.)
After the test run, make sure to remove the *A connector.
3. The wirings to TB2,TB5 (shown in dotted line) are field work.
4. Mark ◎ indicates terminal bed, ⊖ connector, ⊟ board insertion connector or fastening connector of control board.

PEFY-P200•250VMH-A



CAUTION;1. To protect Fan motor from abnormal current, Over current relays<51F> is installed. Therefore, do not change factory set value of Over current relays.

NOTE;1. The part of the broken line indicates the circuit for optional parts.
2. *A in the chart is the connector for a drain pump test run operation. (The Drain Pump operates continuously if the connector is inserted and the power is supplied.) After the test run, make sure to remove the *A connector.
3. The wirings to TB2, TB5 shown in dotted line are field work.
4. Mark ◎ indicates terminal bed, ⊖ connector, ⊟ board insertion connector or fastening connector of control board.

SYMBOL EXPLANATION

SYMBOL	NAME	SYMBOL	NAME
MF	Fan motor	51F	Over current relay (fan motor)
I.B	Indoor controller board	TH21	Thermistor (inlet temp.detection)
A.B	Address board	TH22	Thermistor (piping temp.detection/liquid)
TB2	Power source terminal bed	TH23	Thermistor (piping temp.detection/gas)
TB5	Transmission terminal bed	SW11(A.B)	Switch (1st digit address set)
TB15	Transmission terminal bed	SW12(A.B)	Switch (2nd digit address set)
F1	Fuse AC250V 6.3A F	SW14(A.B)	Switch (connection No.set)
<F2>	Fuse AC250V 5A F	SW1(A.B)	Switch(for mode selection)
T	Transformer	SW2(I.B)	Switch(for capacity code)
<DP>	Drain Pump	SW3(I.B)	Switch(for mode selection)
LEV1,LEV2	Electronic linear expan. valve	SW4(I.B)	Switch(for model selection)
<DS>	Drain sensor	SW5(A.B)	Switch(for voltage selection)
S.B	Surge absorber board	X04..X06	Aux.relay
52F	Contactor (fan motor)	49F	Inner thermostat

inside < > is the optional parts

6. Options

Description	Model	Applicable capacity
Long life filter	PAC-KE32LAF-F	P20/P25/P32
	PAC-KE86LAF	P40/P50/P63
	PAC-KE88LAF	P71/P80
	PAC-KE89LAF	P100/P125/P140
	PAC-KE85LAF	P200/P250
Filter box	PAC-KE63TB-F	P40/P50/P63
	PAC-KE80TB-F	P71/P80
	PAC-KE140TB-F	P100/P125/P140
	PAC-KE250TB-F	P200/P250
Drain water lift-up kit	PAC-KE04DM-F	P40/P50/P63/P71/P80/P100 P125/P140/P200/P250

Ceiling concealed PEFY-P-VMM-A

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1. Specifications

				PEFY-P20VMM-A	PEFY-P25VMM-A	PEFY-P32VMM-A	PEFY-P40VMM-A
Power source				~220-240V 50Hz			
Cooling capacity		※1	kW	2.2	2.8	3.6	4.5
		※2	kcal/h	2,000	2,500	3,150	4,000
Heating capacity		※1	kW	2.5	3.2	4.0	5.0
Power consumption (50Hz)	Cooling		kW	0.15		0.17	0.19
	Heating		kW	0.15		0.17	0.19
Current	Cooling		A	0.73		0.81	0.92
	Heating		A	0.73		0.81	0.92
External finish				Galvanized steel plate			
Dimension	Height		mm	295			
	Width		mm	815			935
	Depth		mm	700			
Net weight			kg	27			33
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)			
Fan	Type			Sirocco fan× 1			Sirocco fan× 2
	Airflow rate (Lo-Mid-Hi)		m^3/min	6.0-7.2-8.5		7.5-9.0-10.5	10.0-12.0-14.0
	External static pressure		Pa	30/50/100			
Motor	Type			Single phase induction motor			
	Output		kW	0.15		0.17	0.19
Air filter				PP Honeycomb fabric (washable)			
Refrigerant pipe dimension	Gas (Brazing)		mm	ø 12.7			
	Liquid (Brazing)		mm	ø 6.35			
Drain pipe dimension				R1 (External thread)			
Noise level (Lo-Mid-Hi)			dB(A)	27-30-32		28-32-35	31-34-37

				PEFY-P50VMM-A	PEFY-P63VMM-A	PEFY-P71VMM-A	PEFY-P80VMM-A
Power source				~220-240V 50Hz			
Cooling capacity		※1	kW	5.6	7.1	8.0	9.0
		※2	kcal/h	5,000	6,300	7,100	8,000
Heating capacity		※1	kW	6.3	8.0	9.0	10.0
Power consumption (50Hz)	Cooling		kW	0.20	0.22	0.25	
	Heating		kW	0.20	0.22	0.25	
Current	Cooling		A	0.98	1.07	1.15	
	Heating		A	0.98	1.07	1.15	
External finish				Galvanized steel plate			
Dimension	Height		mm	295			
	Width		mm	935	1175		
	Depth		mm	700			
Net weight			kg	33	42		
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)			
Fan	Type			Sirocco fan× 2			
	Airflow rate (Lo-Hi)		m^3/min	12.0-14.5-17.0	13.5-16.2-19.0	14.5-18.0-21.0	
	External static pressure		Pa	30/50/100			
Motor	Type			Single phase induction motor			
	Output		kW	0.20	0.22	0.25	
Air filter				PP Honeycomb fabric (washable)			
Refrigerant pipe dimension	Gas (Flare)		mm	ø 15.88			
	Liquid (Flare)		mm	ø 9.52			
Drain pipe dimension				R1 (External thread)			
Noise level (Lo-Mid-Hi)			dB(A)	31-35-38		32-36-39	

Note: ※1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19˚CWB,Outdoor 35˚CDB
Heating : Indoor 20˚CDB,Outdoor 7˚CDB/6˚CWB
※2 Cooling capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19.5˚CWB,Outdoor 35˚CDB (WR2: water 30˚C)

				PEFY-P100VMM-A	PEFY-P125VMM-A	PEFY-P140VMM-A
Power source				~ 220-240V 50Hz		
Cooling capacity		※1	kW	11.2	14.0	16.0
		※2	kcal/h	10,000	12,500	14,000
Heating capacity		※1	kW	12.5	16.0	18.0
Power consumption (50/60Hz)	Cooling		kW	0.29	0.40	0.42
	Heating		kW	0.29	0.40	0.42
Current	Cooling		A	1.34	1.90	1.95
	Heating		A	1.34	1.90	1.95
External finish				Galvanized steel plate		
Dimension	Height		mm	325		
	Width		mm	1415		1715
	Depth		mm	740		
Net weight			kg	62	65	70
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)		
Fan	Type			Sirocco fan× 2		
	Airflow rate (Lo-Hi)		m^3/min	23.0-33.0	28.0-40.0	29.5-42.0
	External static pressure		Pa	50/130		
Motor	Type			Single phase induction motor		
	Output		kW	0.29	0.40	0.42
Air filter				PP Honeycomb fabric (washable)		
Refrigerant pipe dimension	Gas (Flare)		mm	ø 19.05		
	Liquid (Flare)		mm	ø 9.52		
Drain pipe dimension				R1 (External thread)		
Noise level (Lo-Mid-Hi)			dB(A)	40-44	42-45	42-45

Note: ※1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19˚CWB,Outdoor 35˚CDB
Heating : Indoor 20˚CDB,Outdoor 7˚CDB/6˚CWB
※2 Cooling capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19.5˚CWB,Outdoor 35˚CDB (WR2: water 30˚C)

2. Capacity table

2-1.Cooling Capacity (In combination with PUMY-125YM(A))

PEFY-P-VMM-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.							
		23˚CDB 16˚CWB		25˚CDB 18˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20 (2.2)	20.0	2.2	1.8	2.3	1.9	2.4	1.9	2.6	1.9
	22.5	2.1	1.8	2.3	1.9	2.4	1.9	2.6	1.9
	25.0	2.1	1.8	2.3	1.9	2.4	1.8	2.5	1.9
	27.5	2.1	1.8	2.2	1.9	2.4	1.8	2.5	1.9
	30.0	2.1	1.7	2.2	1.8	2.3	1.8	2.5	1.9
	32.5	2.0	1.7	2.2	1.8	2.3	1.8	2.5	1.9
	35.0	2.0	1.7	2.1	1.8	2.3	1.8	2.4	1.9
	37.5	2.0	1.7	2.1	1.8	2.2	1.8	2.4	1.9
	40.0	2.0	1.7	2.1	1.8	2.2	1.8	2.4	1.8
	46.0	1.9	1.7	2.0	1.8	2.1	1.7	2.3	1.8
25 (2.8)	20.0	2.8	2.1	2.9	2.2	3.1	2.2	3.3	2.2
	22.5	2.7	2.1	2.9	2.2	3.1	2.1	3.2	2.2
	25.0	2.7	2.1	2.9	2.1	3.1	2.1	3.2	2.2
	27.5	2.7	2.0	2.8	2.1	3.0	2.1	3.2	2.2
	30.0	2.6	2.0	2.8	2.1	3.0	2.1	3.2	2.2
	32.5	2.6	2.0	2.8	2.1	2.9	2.1	3.1	2.2
	35.0	2.6	2.0	2.7	2.1	2.9	2.1	3.1	2.1
	37.5	2.5	2.0	2.7	2.1	2.9	2.0	3.0	2.1
	40.0	2.5	1.9	2.7	2.1	2.8	2.0	3.0	2.1
	46.0	2.4	1.9	2.6	2.0	2.7	2.0	2.9	2.1
32 (3.6)	20.0	3.6	2.6	3.7	2.7	4.0	2.7	4.2	2.8
	22.5	3.5	2.6	3.7	2.7	4.0	2.7	4.2	2.8
	25.0	3.5	2.6	3.7	2.7	3.9	2.7	4.1	2.8
	27.5	3.4	2.6	3.6	2.7	3.9	2.7	4.1	2.8
	30.0	3.4	2.5	3.6	2.7	3.8	2.6	4.1	2.7
	32.5	3.3	2.5	3.6	2.7	3.8	2.6	4.0	2.7
	35.0	3.3	2.5	3.5	2.6	3.7	2.6	4.0	2.7
	37.5	3.2	2.5	3.5	2.6	3.7	2.6	3.9	2.7
	40.0	3.2	2.5	3.4	2.6	3.6	2.6	3.9	2.6
	46.0	3.1	2.4	3.3	2.5	3.5	2.5	3.7	2.6
40 (4.5)	20.0	4.5	3.4	4.7	3.5	5.0	3.5	5.3	3.6
	22.5	4.4	3.3	4.6	3.5	5.0	3.5	5.2	3.6
	25.0	4.3	3.3	4.6	3.5	4.9	3.5	5.2	3.6
	27.5	4.3	3.3	4.6	3.5	4.9	3.4	5.1	3.5
	30.0	4.2	3.3	4.5	3.4	4.8	3.4	5.1	3.5
	32.5	4.2	3.2	4.4	3.4	4.7	3.4	5.0	3.5
	35.0	4.1	3.2	4.4	3.4	4.7	3.3	5.0	3.5
	37.5	4.1	3.2	4.3	3.4	4.6	3.3	4.9	3.4
	40.0	4.0	3.2	4.3	3.3	4.5	3.3	4.8	3.4
	46.0	3.8	3.1	4.1	3.3	4.3	3.2	4.6	3.3
50 (5.6)	20.0	5.5	4.1	5.8	4.3	6.2	4.3	6.6	4.4
	22.5	5.5	4.1	5.8	4.3	6.2	4.2	6.5	4.4
	25.0	5.4	4.0	5.7	4.2	6.1	4.2	6.4	4.3
	27.5	5.3	4.0	5.7	4.2	6.0	4.2	6.4	4.3
	30.0	5.3	4.0	5.6	4.2	5.9	4.1	6.3	4.3
	32.5	5.2	3.9	5.5	4.1	5.9	4.1	6.2	4.2
	35.0	5.1	3.9	5.5	4.1	5.8	4.1	6.2	4.2
	37.5	5.0	3.9	5.4	4.1	5.7	4.0	6.1	4.2
	40.0	5.0	3.8	5.3	4.0	5.6	4.0	6.0	4.1
	46.0	4.8	3.7	5.1	3.9	5.4	3.9	5.8	4.0
63 (7.1)	20.0	7.0	5.2	7.4	5.4	7.9	5.3	8.3	5.5
	22.5	6.9	5.1	7.3	5.3	7.8	5.3	8.2	5.5
	25.0	6.9	5.1	7.3	5.3	7.7	5.3	8.2	5.4
	27.5	6.8	5.0	7.2	5.3	7.7	5.2	8.1	5.4
	30.0	6.7	5.0	7.1	5.2	7.5	5.2	8.0	5.4
	32.5	6.6	4.9	7.0	5.2	7.5	5.1	7.9	5.3
	35.0	6.5	4.9	6.9	5.1	7.3	5.1	7.8	5.3
	37.5	6.4	4.8	6.8	5.1	7.2	5.0	7.7	5.2
	40.0	6.3	4.8	6.7	5.1	7.2	5.0	7.6	5.2
	46.0	6.1	4.7	6.5	4.9	6.9	4.9	7.3	5.1

Cooling Capacity (In combination with PUMY-125YM(A))

PEFY-P-VMM-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.							
		23˚CDB 16˚CWB		25˚CDB 18˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC
71 (8.0)	20.0	7.9	5.8	8.3	6.0	8.9	6.0	9.4	6.1
	22.5	7.8	5.7	8.2	6.0	8.8	5.9	9.3	6.1
	25.0	7.7	5.7	8.2	5.9	8.7	5.9	9.2	6.1
	27.5	7.6	5.6	8.1	5.9	8.6	5.9	9.1	6.0
	30.0	7.5	5.6	8.0	5.9	8.5	5.8	9.0	6.0
	32.5	7.4	5.5	7.9	5.8	8.4	5.8	8.9	5.9
	35.0	7.3	5.5	7.8	5.8	8.3	5.7	8.8	5.9
	37.5	7.2	5.4	7.7	5.7	8.2	5.6	8.7	5.9
	40.0	7.1	5.4	7.6	5.7	8.1	5.6	8.6	5.8
	46.0	6.8	5.2	7.3	5.5	7.7	5.4	8.2	5.7
80 (9.0)	20.0	8.9	6.3	9.4	6.5	10.0	6.5	10.6	6.7
	22.5	8.8	6.2	9.3	6.5	9.9	6.5	10.4	6.6
	25.0	8.7	6.2	9.2	6.5	9.8	6.4	10.4	6.6
	27.5	8.6	6.1	9.1	6.4	9.7	6.4	10.3	6.5
	30.0	8.5	6.1	9.0	6.4	9.5	6.3	10.2	6.5
	32.5	8.3	6.0	8.9	6.3	9.5	6.2	10.0	6.4
	35.0	8.2	5.9	8.8	6.2	9.3	6.2	9.9	6.4
	37.5	8.1	5.9	8.6	6.2	9.2	6.1	9.8	6.3
	40.0	8.0	5.8	8.6	6.1	9.1	6.1	9.6	6.3
	46.0	7.7	5.7	8.2	6.0	8.7	5.9	9.3	6.1
100 (11.2)	20.0	11.1	8.5	11.6	8.9	12.5	8.8	13.1	9.1
	22.5	10.9	8.4	11.5	8.8	12.3	8.8	13.0	9.0
	25.0	10.8	8.4	11.5	8.8	12.2	8.7	12.9	9.0
	27.5	10.7	8.3	11.3	8.7	12.1	8.7	12.8	8.9
	30.0	10.5	8.2	11.2	8.7	11.9	8.6	12.6	8.9
	32.5	10.4	8.2	11.1	8.6	11.8	8.5	12.5	8.8
	35.0	10.2	8.1	10.9	8.5	11.6	8.4	12.3	8.8
	37.5	10.1	8.0	10.8	8.5	11.4	8.4	12.2	8.7
	40.0	10.0	8.0	10.6	8.4	11.3	8.3	12.0	8.6
	46.0	9.6	7.8	10.2	8.2	10.8	8.1	11.5	8.4
125 (14.0)	20.0	13.9	10.4	14.6	10.9	15.6	10.8	16.4	11.1
	22.5	13.7	10.3	14.4	10.8	15.4	10.7	16.2	11.1
	25.0	13.5	10.3	14.3	10.8	15.3	10.7	16.1	11.0
	27.5	13.4	10.2	14.2	10.7	15.1	10.6	16.0	10.9
	30.0	13.2	10.1	14.0	10.6	14.9	10.5	15.8	10.9
	32.5	13.0	10.0	13.8	10.5	14.7	10.4	15.6	10.8
	35.0	12.8	9.9	13.7	10.4	14.5	10.3	15.4	10.7
	37.5	12.6	9.8	13.4	10.3	14.3	10.2	15.2	10.6
	40.0	12.5	9.8	13.3	10.3	14.1	10.2	15.0	10.5
	46.0	12.0	9.5	12.8	10.0	13.5	9.9	14.4	10.3
140 (16.0)	20.0	15.8	11.6	16.6	12.1	17.8	12.0	18.8	12.3
	22.5	15.6	11.5	16.5	12.0	17.6	11.9	18.6	12.3
	25.0	15.5	11.4	16.4	11.9	17.4	11.9	18.4	12.2
	27.5	15.3	11.3	16.2	11.9	17.2	11.8	18.2	12.1
	30.0	15.0	11.2	16.0	11.8	17.0	11.6	18.0	12.0
	32.5	14.8	11.1	15.8	11.7	16.8	11.6	17.9	12.0
	35.0	14.6	11.0	15.6	11.6	16.5	11.4	17.6	11.8
	37.5	14.4	10.9	15.4	11.4	16.3	11.3	17.4	11.8
	40.0	14.2	10.8	15.2	11.4	16.1	11.3	17.2	11.6
	46.0	13.7	10.5	14.6	11.1	15.4	11.0	16.5	11.4

2-2.Heating Capacity (In combination with PUMY-125YM(A))

PEFY-P-VMM-A

SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB		
		15.0	20.0	25.0
	˚CWB	SHC	SHC	SHC
20	-12.0	1.6	1.6	1.5
	-10.0	1.7	1.6	1.6
	-5.0	1.9	1.9	1.9
	0.0	2.2	2.1	2.1
	2.5	2.3	2.3	2.3
	6.0	2.5	2.5	2.5
	7.5	2.6	2.6	2.5
	10.0	2.8	2.7	2.5
	12.5	2.9	2.8	2.5
	15.5	3.1	2.8	2.5
25	-12.0	2.0	2.0	2.0
	-10.0	2.1	2.1	2.1
	-5.0	2.4	2.4	2.4
	0.0	2.8	2.8	2.7
	2.5	3.0	2.9	2.9
	6.0	3.2	3.2	3.2
	7.5	3.3	3.3	3.2
	10.0	3.5	3.5	3.2
	12.5	3.7	3.5	3.2
	15.5	3.9	3.5	3.2
32	-12.0	2.5	2.5	2.5
	-10.0	2.7	2.6	2.6
	-5.0	3.1	3.0	3.0
	0.0	3.5	3.4	3.4
	2.5	3.7	3.7	3.6
	6.0	4.0	4.0	3.9
	7.5	4.2	4.1	4.0
	10.0	4.4	4.4	4.0
	12.5	4.7	4.4	4.0
	15.5	4.9	4.4	4.0
40	-12.0	3.2	3.1	3.1
	-10.0	3.4	3.3	3.2
	-5.0	3.8	3.8	3.7
	0.0	4.3	4.3	4.2
	2.5	4.6	4.6	4.5
	6.0	5.0	5.0	4.9
	7.5	5.2	5.2	5.0
	10.0	5.5	5.5	5.0
	12.5	5.9	5.5	5.0
	15.5	6.2	5.5	5.0
50	-12.0	4.0	3.9	3.9
	-10.0	4.2	4.2	4.1
	-5.0	4.8	4.8	4.7
	0.0	5.5	5.4	5.3
	2.5	5.8	5.8	5.7
	6.0	6.3	6.3	6.2
	7.5	6.6	6.5	6.2
	10.0	7.0	6.9	6.2
	12.5	7.4	7.0	6.2
	15.5	7.7	7.0	6.2
63	-12.0	5.1	5.0	4.9
	-10.0	5.4	5.3	5.2
	-5.0	6.1	6.0	5.9
	0.0	6.9	6.9	6.8
	2.5	7.4	7.3	7.2
	6.0	8.0	8.0	7.9
	7.5	8.3	8.3	7.9
	10.0	8.8	8.8	7.9
	12.5	9.4	8.8	7.9
	15.5	9.8	8.8	7.9

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB		
		15.0	20.0	25.0
	˚CWB	SHC	SHC	SHC
71	-12.0	5.7	5.6	5.5
	-10.0	6.0	5.9	5.8
	-5.0	6.9	6.8	6.7
	0.0	7.8	7.7	7.6
	2.5	8.3	8.2	8.1
	6.0	9.1	9.0	8.9
	7.5	9.4	9.3	8.9
	10.0	9.9	9.9	8.9
	12.5	10.5	9.9	8.9
	15.5	11.1	9.9	8.9
80	-12.0	6.4	6.2	6.1
	-10.0	6.7	6.6	6.5
	-5.0	7.6	7.5	7.4
	0.0	8.7	8.6	8.5
	2.5	9.2	9.2	9.0
	6.0	10.1	10.0	9.9
	7.5	10.4	10.4	9.9
	10.0	11.1	11.0	9.9
	12.5	11.7	11.0	9.9
	15.5	12.3	11.0	9.9
100	-12.0	8.0	7.8	7.7
	-10.0	8.4	8.2	8.1
	-5.0	9.6	9.4	9.3
	0.0	10.9	10.7	10.6
	2.5	11.5	11.4	11.3
	6.0	12.6	12.5	12.3
	7.5	13.0	12.9	12.4
	10.0	13.8	13.7	12.4
	12.5	14.6	13.8	12.4
	15.5	15.4	13.8	12.4
125	-12.0	10.2	10.0	9.8
	-10.0	10.7	10.6	10.4
	-5.0	12.2	12.1	11.9
	0.0	13.9	13.8	13.6
	2.5	14.8	14.7	14.5
	6.0	16.1	16.0	15.8
	7.5	16.7	16.6	15.8
	10.0	17.7	17.6	15.8
	12.5	18.7	17.7	15.8
	15.5	19.7	17.7	15.8
140	-12.0	11.5	11.2	11.0
	-10.0	12.1	11.9	11.7
	-5.0	13.8	13.6	13.4
	0.0	15.6	15.5	15.3
	2.5	16.6	16.5	16.3
	6.0	18.1	18.0	17.8
	7.5	18.8	18.6	17.8
	10.0	19.9	19.8	17.8
	12.5	21.1	19.9	17.8
	15.5	22.1	19.9	17.8

2-3.Cooling Capacity (In combination with PU(H)Y,PURY-(P)200•250YMF-C)

PEFY-P-VMM-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	20.0	2.2	1.8	2.2	1.8	2.3	1.8	2.3	1.8	2.4	1.9	2.5	1.9	2.6	1.8
(2.2)	22.5	2.1	1.8	2.2	1.8	2.3	1.8	2.3	1.8	2.4	1.9	2.4	1.8	2.5	1.8
	25.0	2.1	1.8	2.2	1.8	2.2	1.8	2.3	1.8	2.3	1.9	2.4	1.8	2.5	1.8
	27.5	2.1	1.8	2.1	1.8	2.2	1.8	2.3	1.8	2.3	1.9	2.4	1.8	2.5	1.8
	30.0	2.1	1.7	2.1	1.8	2.2	1.8	2.2	1.8	2.3	1.9	2.4	1.8	2.5	1.8
	32.5	2.0	1.7	2.1	1.8	2.2	1.8	2.2	1.8	2.3	1.9	2.4	1.8	2.4	1.8
	35.0	2.0	1.7	2.1	1.8	2.2	1.7	2.2	1.8	2.2	1.8	2.3	1.8	2.4	1.8
	37.5	2.0	1.7	2.0	1.8	2.1	1.7	2.2	1.8	2.2	1.8	2.3	1.8	2.4	1.8
	40.0	2.0	1.7	2.0	1.8	2.1	1.7	2.2	1.8	2.2	1.8	2.3	1.8	2.4	1.8
	43.0	2.0	1.7	2.0	1.8	2.1	1.7	2.1	1.8	2.2	1.8	2.3	1.8	2.3	1.7
25	20.0	2.7	2.1	2.8	2.1	2.9	2.1	3.0	2.1	3.0	2.2	3.1	2.1	3.2	2.0
(2.8)	22.5	2.7	2.1	2.8	2.1	2.9	2.1	2.9	2.1	3.0	2.1	3.1	2.1	3.2	2.0
	25.0	2.7	2.0	2.7	2.1	2.9	2.0	2.9	2.1	3.0	2.1	3.1	2.1	3.2	2.0
	27.5	2.7	2.0	2.7	2.1	2.8	2.0	2.9	2.1	2.9	2.1	3.1	2.1	3.2	2.0
	30.0	2.6	2.0	2.7	2.1	2.8	2.0	2.9	2.0	2.9	2.1	3.0	2.1	3.1	2.0
	32.5	2.6	2.0	2.7	2.1	2.8	2.0	2.8	2.0	2.9	2.1	3.0	2.0	3.1	2.0
	35.0	2.6	2.0	2.6	2.0	2.7	2.0	2.8	2.0	2.9	2.1	3.0	2.0	3.1	2.0
	37.5	2.5	2.0	2.6	2.0	2.7	2.0	2.8	2.0	2.8	2.1	2.9	2.0	3.1	2.0
	40.0	2.5	2.0	2.6	2.0	2.7	2.0	2.7	2.0	2.8	2.1	2.9	2.0	3.0	2.0
	43.0	2.5	1.9	2.5	2.0	2.7	2.0	2.7	2.0	2.8	2.1	2.9	2.0	3.0	2.0
32	20.0	3.5	2.6	3.6	2.7	3.7	2.6	3.8	2.6	3.9	2.7	4.0	2.6	4.2	2.6
(3.6)	22.5	3.5	2.6	3.6	2.7	3.7	2.6	3.8	2.6	3.9	2.7	4.0	2.6	4.1	2.6
	25.0	3.5	2.6	3.5	2.6	3.7	2.6	3.7	2.6	3.8	2.7	4.0	2.6	4.1	2.5
	27.5	3.4	2.6	3.5	2.6	3.6	2.6	3.7	2.6	3.8	2.7	3.9	2.6	4.1	2.5
	30.0	3.4	2.5	3.5	2.6	3.6	2.5	3.7	2.6	3.7	2.7	3.9	2.6	4.0	2.5
	32.5	3.3	2.5	3.4	2.6	3.6	2.5	3.6	2.6	3.7	2.6	3.9	2.6	4.0	2.5
	35.0	3.3	2.5	3.4	2.6	3.5	2.5	3.6	2.5	3.7	2.6	3.8	2.6	4.0	2.5
	37.5	3.3	2.5	3.3	2.6	3.5	2.5	3.6	2.5	3.6	2.6	3.8	2.5	3.9	2.5
	40.0	3.2	2.5	3.3	2.5	3.5	2.5	3.5	2.5	3.6	2.6	3.7	2.5	3.9	2.5
	43.0	3.2	2.5	3.3	2.5	3.4	2.5	3.5	2.5	3.6	2.6	3.7	2.5	3.8	2.5
40	20.0	4.4	3.4	4.5	3.4	4.7	3.4	4.8	3.4	4.9	3.5	5.0	3.4	5.2	3.3
(4.5)	22.5	4.4	3.3	4.5	3.4	4.6	3.3	4.7	3.4	4.8	3.5	5.0	3.4	5.2	3.3
	25.0	4.3	3.3	4.4	3.4	4.6	3.3	4.7	3.4	4.8	3.5	5.0	3.4	5.1	3.3
	27.5	4.3	3.3	4.4	3.4	4.5	3.3	4.6	3.3	4.7	3.4	4.9	3.4	5.1	3.3
	30.0	4.2	3.3	4.3	3.4	4.5	3.3	4.6	3.3	4.7	3.4	4.9	3.3	5.0	3.3
	32.5	4.2	3.2	4.3	3.3	4.5	3.3	4.5	3.3	4.6	3.4	4.8	3.3	5.0	3.2
	35.0	4.1	3.2	4.2	3.3	4.4	3.2	4.5	3.3	4.6	3.4	4.8	3.3	5.0	3.2
	37.5	4.1	3.2	4.2	3.3	4.4	3.2	4.5	3.3	4.5	3.4	4.7	3.3	4.9	3.2
	40.0	4.1	3.2	4.1	3.3	4.3	3.2	4.4	3.2	4.5	3.4	4.7	3.3	4.9	3.2
	43.0	4.0	3.2	4.1	3.2	4.3	3.2	4.4	3.2	4.4	3.3	4.6	3.3	4.8	3.2
50	20.0	5.5	4.1	5.6	4.2	5.8	4.1	5.9	4.1	6.0	4.2	6.3	4.1	6.5	4.0
(5.6)	22.5	5.4	4.1	5.5	4.1	5.8	4.1	5.9	4.1	6.0	4.2	6.2	4.1	6.4	4.0
	25.0	5.4	4.0	5.5	4.1	5.7	4.0	5.8	4.1	5.9	4.2	6.2	4.1	6.4	4.0
	27.5	5.3	4.0	5.4	4.1	5.7	4.0	5.8	4.0	5.9	4.2	6.1	4.1	6.3	4.0
	30.0	5.3	4.0	5.4	4.1	5.6	4.0	5.7	4.0	5.8	4.1	6.0	4.0	6.3	3.9
	32.5	5.2	3.9	5.3	4.0	5.5	4.0	5.7	4.0	5.8	4.1	6.0	4.0	6.2	3.9
	35.0	5.2	3.9	5.3	4.0	5.5	3.9	5.6	4.0	5.7	4.1	5.9	4.0	6.2	3.9
	37.5	5.1	3.9	5.2	4.0	5.4	3.9	5.5	3.9	5.7	4.1	5.9	4.0	6.1	3.9
	40.0	5.0	3.9	5.2	4.0	5.4	3.9	5.5	3.9	5.6	4.1	5.8	4.0	6.0	3.9
	43.0	5.0	3.8	5.1	3.9	5.3	3.9	5.4	3.9	5.5	4.0	5.8	3.9	6.0	3.8
63	20.0	7.0	5.1	7.1	5.2	7.4	5.1	7.5	5.1	7.7	5.3	8.0	5.2	8.2	5.0
(7.1)	22.5	6.9	5.1	7.0	5.2	7.3	5.1	7.5	5.1	7.6	5.3	7.9	5.1	8.2	5.0
	25.0	6.8	5.0	7.0	5.2	7.2	5.0	7.4	5.1	7.5	5.2	7.8	5.1	8.1	5.0
	27.5	6.7	5.0	6.9	5.1	7.2	5.0	7.3	5.1	7.5	5.2	7.7	5.1	8.0	4.9
	30.0	6.7	5.0	6.8	5.1	7.1	5.0	7.2	5.0	7.4	5.2	7.7	5.1	8.0	4.9
	32.5	6.6	4.9	6.7	5.1	7.0	5.0	7.2	5.0	7.3	5.2	7.6	5.0	7.9	4.9
	35.0	6.5	4.9	6.7	5.0	7.0	4.9	7.1	5.0	7.2	5.1	7.5	5.0	7.8	4.9
	37.5	6.5	4.9	6.6	5.0	6.9	4.9	7.0	4.9	7.2	5.1	7.5	5.0	7.7	4.8
	40.0	6.4	4.8	6.5	5.0	6.8	4.9	7.0	4.9	7.1	5.1	7.4	4.9	7.7	4.8
	43.0	6.3	4.8	6.4	4.9	6.7	4.8	6.9	4.9	7.0	5.0	7.3	4.9	7.6	4.8

Cooling Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PEFY-P-VMM-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
71	20.0	7.8	5.7	8.0	5.9	8.3	5.7	8.5	5.8	8.6	5.9	9.0	5.8	9.3	5.6
(8.0)	22.5	7.8	5.7	7.9	5.8	8.2	5.7	8.4	5.7	8.6	5.9	8.9	5.7	9.2	5.6
	25.0	7.7	5.7	7.8	5.8	8.2	5.6	8.3	5.7	8.5	5.9	8.8	5.7	9.1	5.6
	27.5	7.6	5.6	7.8	5.7	8.1	5.6	8.2	5.7	8.4	5.8	8.7	5.7	9.0	5.5
	30.0	7.5	5.6	7.7	5.7	8.0	5.6	8.2	5.6	8.3	5.8	8.6	5.7	9.0	5.5
	32.5	7.4	5.5	7.6	5.7	7.9	5.5	8.1	5.6	8.2	5.8	8.6	5.6	8.9	5.5
	35.0	7.4	5.5	7.5	5.6	7.8	5.5	8.0	5.6	8.2	5.7	8.5	5.6	8.8	5.4
	37.5	7.3	5.5	7.4	5.6	7.8	5.5	7.9	5.5	8.1	5.7	8.4	5.6	8.7	5.4
	40.0	7.2	5.4	7.4	5.5	7.7	5.4	7.8	5.5	8.0	5.7	8.3	5.5	8.6	5.4
	43.0	7.1	5.4	7.3	5.5	7.6	5.4	7.7	5.4	7.9	5.6	8.2	5.5	8.5	5.3
80	20.0	8.8	6.2	9.0	6.4	9.4	6.2	9.5	6.2	9.7	6.4	10.1	6.2	10.4	6.0
(9.0)	22.5	8.7	6.2	8.9	6.3	9.3	6.2	9.5	6.2	9.6	6.4	10.0	6.2	10.4	6.0
	25.0	8.6	6.1	8.8	6.3	9.2	6.1	9.4	6.1	9.5	6.3	9.9	6.1	10.3	6.0
	27.5	8.6	6.1	8.7	6.2	9.1	6.1	9.3	6.1	9.5	6.3	9.8	6.1	10.2	5.9
	30.0	8.5	6.1	8.6	6.2	9.0	6.0	9.2	6.1	9.4	6.2	9.7	6.1	10.1	5.9
	32.5	8.4	6.0	8.6	6.1	8.9	6.0	9.1	6.0	9.3	6.2	9.6	6.0	10.0	5.9
	35.0	8.3	6.0	8.5	6.1	8.8	5.9	9.0	6.0	9.2	6.2	9.5	6.0	9.9	5.8
	37.5	8.2	5.9	8.4	6.0	8.7	5.9	8.9	5.9	9.1	6.1	9.5	6.0	9.8	5.8
	40.0	8.1	5.9	8.3	6.0	8.6	5.9	8.8	5.9	9.0	6.1	9.4	5.9	9.7	5.8
	43.0	8.0	5.8	8.2	5.9	8.5	5.8	8.7	5.9	8.9	6.0	9.3	5.9	9.6	5.7
100	20.0	11.0	8.5	11.2	8.7	11.6	8.5	11.9	8.6	12.1	8.9	12.5	8.6	13.0	8.4
(11.2)	22.5	10.9	8.4	11.1	8.6	11.5	8.4	11.8	8.5	12.0	8.8	12.4	8.6	12.9	8.4
	25.0	10.8	8.3	11.0	8.6	11.4	8.4	11.6	8.5	11.9	8.8	12.3	8.5	12.8	8.3
	27.5	10.6	8.3	10.9	8.5	11.3	8.3	11.5	8.4	11.8	8.7	12.2	8.5	12.7	8.3
	30.0	10.5	8.2	10.8	8.5	11.2	8.3	11.4	8.4	11.6	8.7	12.1	8.5	12.5	8.2
	32.5	10.4	8.2	10.6	8.4	11.1	8.2	11.3	8.3	11.5	8.6	12.0	8.4	12.4	8.2
	35.0	10.3	8.1	10.5	8.4	11.0	8.2	11.2	8.3	11.4	8.6	11.9	8.4	12.3	8.2
	37.5	10.2	8.1	10.4	8.3	10.9	8.1	11.1	8.2	11.3	8.5	11.8	8.3	12.2	8.1
	40.0	10.1	8.0	10.3	8.2	10.8	8.1	11.0	8.2	11.2	8.5	11.6	8.3	12.1	8.1
	43.0	9.9	8.0	10.2	8.2	10.6	8.0	10.8	8.2	11.1	8.4	11.5	8.3	12.0	8.1
125	20.0	13.7	10.4	14.0	10.6	14.6	10.4	14.8	10.5	15.1	10.8	15.7	10.5	16.2	10.2
(14.0)	22.5	13.6	10.3	13.9	10.5	14.4	10.3	14.7	10.4	15.0	10.7	15.5	10.5	16.1	10.2
	25.0	13.4	10.2	13.7	10.5	14.3	10.2	14.6	10.3	14.8	10.7	15.4	10.4	16.0	10.1
	27.5	13.3	10.2	13.6	10.4	14.1	10.2	14.4	10.3	14.7	10.6	15.3	10.4	15.8	10.1
	30.0	13.2	10.1	13.4	10.3	14.0	10.1	14.3	10.2	14.6	10.6	15.1	10.3	15.7	10.0
	32.5	13.0	10.0	13.3	10.3	13.9	10.1	14.1	10.2	14.4	10.5	15.0	10.3	15.5	10.0
	35.0	12.9	10.0	13.2	10.2	13.7	10.0	14.0	10.1	14.3	10.5	14.8	10.2	15.4	9.9
	37.5	12.7	9.9	13.0	10.1	13.6	9.9	13.9	10.1	14.1	10.4	14.7	10.2	15.3	9.9
	40.0	12.6	9.8	12.9	10.1	13.4	9.9	13.7	10.0	14.0	10.3	14.6	10.1	15.1	9.9
	43.0	12.4	9.7	12.7	10.0	13.3	9.8	13.6	9.9	13.8	10.3	14.4	10.0	15.0	9.8
140	20.0	15.7	11.5	16.0	11.8	16.6	11.5	17.0	11.6	17.3	11.9	17.9	11.6	18.6	11.3
(16.0)	22.5	15.5	11.4	15.8	11.7	16.5	11.4	16.8	11.5	17.1	11.9	17.8	11.5	18.4	11.2
	25.0	15.4	11.4	15.7	11.6	16.3	11.3	16.6	11.4	17.0	11.8	17.6	11.5	18.2	11.2
	27.5	15.2	11.3	15.5	11.5	16.2	11.3	16.5	11.4	16.8	11.7	17.4	11.4	18.1	11.1
	30.0	15.0	11.2	15.4	11.4	16.0	11.2	16.3	11.3	16.6	11.7	17.3	11.4	17.9	11.0
	32.5	14.9	11.1	15.2	11.4	15.8	11.1	16.2	11.2	16.5	11.6	17.1	11.3	17.8	11.0
	35.0	14.7	11.0	15.0	11.3	15.7	11.1	16.0	11.2	16.3	11.5	17.0	11.2	17.6	10.9
	37.5	14.6	11.0	14.9	11.2	15.5	11.0	15.8	11.1	16.2	11.5	16.8	11.2	17.4	10.9
	40.0	14.4	10.9	14.7	11.1	15.4	10.9	15.7	11.0	16.0	11.4	16.6	11.1	17.3	10.8
	43.0	14.2	10.8	14.5	11.1	15.2	10.8	15.5	10.9	15.8	11.3	16.4	11.0	17.1	10.8

2-4.Heating Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PEFY-P-VMM-A

SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.:°CDB			
		15.0	20.0	25.0	27.0
	°CWB	SHC	SHC	SHC	SHC
20	-15.0	1.7	1.6	1.6	1.6
	-10.0	1.9	1.9	1.9	1.7
	-5.0	2.1	2.1	2.0	1.7
	0.0	2.4	2.4	2.0	1.7
	2.5	2.5	2.5	2.0	1.7
	6.0	2.5	2.5	2.0	1.7
	7.5	2.6	2.5	2.0	1.7
	10.0	2.8	2.5	2.0	1.7
	12.5	3.0	2.5	2.0	1.7
	15.5	3.0	2.5	2.0	1.7
25	-15.0	2.1	2.1	2.1	2.1
	-10.0	2.4	2.4	2.4	2.2
	-5.0	2.7	2.7	2.5	2.2
	0.0	3.1	3.0	2.5	2.2
	2.5	3.2	3.2	2.5	2.2
	6.0	3.2	3.2	2.5	2.2
	7.5	3.4	3.2	2.5	2.2
	10.0	3.6	3.2	2.5	2.2
	12.5	3.8	3.2	2.5	2.2
	15.5	3.9	3.2	2.5	2.2
32	-15.0	2.7	2.6	2.6	2.6
	-10.0	3.1	3.0	3.0	2.8
	-5.0	3.4	3.4	3.1	2.8
	0.0	3.8	3.8	3.1	2.8
	2.5	4.0	4.0	3.1	2.8
	6.0	4.0	4.0	3.1	2.8
	7.5	4.2	4.0	3.1	2.8
	10.0	4.5	4.0	3.1	2.8
	12.5	4.8	4.0	3.1	2.8
	15.5	4.8	4.0	3.1	2.8
40	-15.0	3.3	3.3	3.3	3.3
	-10.0	3.8	3.8	3.7	3.5
	-5.0	4.3	4.2	3.9	3.5
	0.0	4.8	4.7	3.9	3.5
	2.5	5.0	5.0	3.9	3.5
	6.0	5.1	5.0	3.9	3.5
	7.5	5.3	5.0	3.9	3.5
	10.0	5.6	5.0	3.9	3.5
	12.5	6.0	5.0	3.9	3.5
	15.5	6.1	5.0	3.9	3.5
50	-15.0	4.2	4.2	4.1	4.1
	-10.0	4.8	4.8	4.7	4.3
	-5.0	5.4	5.3	4.9	4.3
	0.0	6.0	5.9	4.9	4.3
	2.5	6.3	6.2	4.9	4.3
	6.0	6.4	6.3	4.9	4.3
	7.5	6.6	6.3	4.9	4.3
	10.0	7.1	6.3	4.9	4.3
	12.5	7.5	6.3	4.9	4.3
	15.5	7.6	6.3	4.9	4.3
63	-15.0	5.4	5.3	5.2	5.2
	-10.0	6.1	6.0	6.0	5.5
	-5.0	6.9	6.8	6.2	5.5
	0.0	7.6	7.5	6.2	5.5
	2.5	8.0	7.9	6.2	5.5
	6.0	8.1	8.0	6.2	5.5
	7.5	8.4	8.0	6.2	5.5
	10.0	9.0	8.0	6.2	5.5
	12.5	9.6	8.0	6.2	5.5
	15.5	9.7	8.0	6.2	5.5

Unit size	Outdoor air temp.	Indoor air temp.:°CDB			
		15.0	20.0	25.0	27.0
	°CWB	SHC	SHC	SHC	SHC
71	-15.0	6.0	5.9	5.9	5.9
	-10.0	6.9	6.8	6.7	6.2
	-5.0	7.7	7.6	7.0	6.2
	0.0	8.6	8.5	7.0	6.2
	2.5	9.0	8.9	7.0	6.2
	6.0	9.1	9.0	7.0	6.2
	7.5	9.5	9.0	7.0	6.2
	10.0	10.1	9.0	7.0	6.2
	12.5	10.8	9.0	7.0	6.2
	15.5	10.9	9.0	7.0	6.2
80	-15.0	6.7	6.6	6.5	6.5
	-10.0	7.6	7.5	7.4	6.9
	-5.0	8.6	8.5	7.8	6.9
	0.0	9.5	9.4	7.8	6.9
	2.5	10.0	9.9	7.8	6.9
	6.0	10.1	10.0	7.8	6.9
	7.5	10.5	10.0	7.8	6.9
	10.0	11.2	10.0	7.8	6.9
	12.5	12.0	10.0	7.8	6.9
	15.5	12.1	10.0	7.8	6.9
100	-15.0	8.4	8.2	8.2	8.1
	-10.0	9.6	9.4	9.3	8.6
	-5.0	10.7	10.6	9.8	8.6
	0.0	11.9	11.8	9.8	8.6
	2.5	12.5	12.4	9.8	8.6
	6.0	12.6	12.5	9.8	8.6
	7.5	13.2	12.5	9.8	8.6
	10.0	14.1	12.5	9.8	8.6
	12.5	15.0	12.5	9.8	8.6
	15.5	15.1	12.5	9.8	8.6
125	-15.0	10.7	10.6	10.5	10.4
	-10.0	12.2	12.1	11.9	11.0
	-5.0	13.7	13.6	12.5	11.0
	0.0	15.3	15.1	12.5	11.0
	2.5	16.0	15.8	12.5	11.0
	6.0	16.2	16.0	12.5	11.0
	7.5	16.8	16.0	12.5	11.0
	10.0	18.0	16.0	12.5	11.0
	12.5	19.1	16.0	12.5	11.0
	15.5	19.4	16.0	12.5	11.0
140	-15.0	12.1	11.9	11.8	11.7
	-10.0	13.8	13.6	13.4	12.4
	-5.0	15.5	15.3	14.0	12.4
	0.0	17.2	17.0	14.0	12.4
	2.5	18.0	17.8	14.0	12.4
	6.0	18.2	18.0	14.0	12.4
	7.5	19.0	18.0	14.0	12.4
	10.0	20.2	18.0	14.0	12.4
	12.5	21.5	18.0	14.0	12.4
	15.5	21.8	18.0	14.0	12.4

2-5.Cooling capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PEFY-P-VMM-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	20.0	1813	1520	1901	1588	2049	1585	2157	1637	2192	1691	2320	1668	2459	1644
	22.5	1813	1520	1894	1584	2031	1578	2131	1626	2164	1681	2290	1657	2424	1633
	25.0	1799	1513	1876	1576	2008	1568	2105	1616	2137	1670	2259	1646	2389	1621
	27.5	1784	1507	1857	1568	1985	1559	2079	1606	2110	1660	2229	1635	2354	1610
	30.0	1770	1500	1839	1560	1962	1549	2052	1595	2083	1649	2198	1625	2319	1598
	32.5	1755	1494	1821	1552	1939	1540	2026	1585	2055	1638	2167	1614	2285	1587
	35.0	1741	1487	1802	1544	1916	1530	2000	1575	2028	1628	2137	1603	2250	1575
	37.5	1726	1480	1784	1536	1893	1521	1974	1564	2001	1618	2106	1592	2215	1564
	40.0	1712	1474	1766	1527	1870	1511	1948	1554	1974	1607	2076	1581	2180	1553
	43.0	1695	1466	1744	1518	1843	1500	1916	1542	1941	1595	2039	1568	2139	1539
25	20.0	2266	1734	2377	1807	2561	1806	2697	1858	2740	1912	2900	1885	3073	1856
	22.5	2266	1734	2367	1802	2539	1796	2664	1844	2705	1898	2862	1870	3030	1841
	25.0	2248	1726	2345	1791	2510	1784	2631	1830	2671	1884	2824	1856	2986	1825
	27.5	2230	1717	2322	1781	2482	1771	2598	1816	2637	1870	2786	1841	2943	1810
	30.0	2212	1708	2299	1770	2453	1758	2566	1803	2603	1856	2748	1827	2899	1795
	32.5	2194	1700	2276	1759	2424	1746	2533	1789	2569	1842	2709	1812	2856	1780
	35.0	2176	1691	2253	1748	2395	1733	2500	1776	2535	1828	2671	1798	2812	1765
	37.5	2158	1682	2230	1738	2367	1721	2467	1762	2501	1814	2633	1784	2769	1750
	40.0	2140	1674	2207	1727	2338	1708	2434	1749	2467	1801	2595	1769	2725	1735
	43.0	2118	1663	2180	1714	2304	1693	2395	1732	2426	1784	2549	1752	2673	1717
32	20.0	2855	2160	2995	2249	3227	2249	3398	2312	3452	2378	3654	2344	3872	2308
	22.5	2855	2160	2983	2243	3199	2236	3357	2294	3409	2360	3606	2325	3817	2288
	25.0	2833	2149	2954	2229	3163	2220	3315	2277	3366	2342	3558	2307	3763	2269
	27.5	2810	2138	2925	2216	3127	2204	3274	2259	3323	2324	3510	2288	3708	2249
	30.0	2787	2127	2896	2202	3091	2188	3233	2242	3280	2306	3462	2270	3653	2230
	32.5	2765	2116	2868	2188	3055	2172	3191	2224	3237	2289	3414	2251	3598	2211
	35.0	2742	2104	2839	2175	3018	2156	3150	2207	3194	2271	3366	2233	3544	2191
	37.5	2719	2093	2810	2161	2982	2140	3109	2190	3151	2253	3318	2215	3489	2172
	40.0	2696	2083	2781	2148	2946	2124	3067	2173	3109	2236	3270	2197	3434	2153
	43.0	2669	2069	2746	2131	2902	2105	3018	2152	3057	2215	3212	2175	3368	2131
40	20.0	3625	2805	3803	2923	4098	2921	4315	3006	4383	3096	4640	3052	4917	3006
	22.5	3625	2805	3788	2916	4063	2906	4262	2985	4329	3074	4579	3029	4848	2982
	25.0	3597	2791	3751	2899	4017	2886	4210	2963	4274	3051	4518	3006	4778	2957
	27.5	3568	2778	3715	2882	3971	2866	4157	2941	4220	3029	4457	2983	4708	2933
	30.0	3539	2764	3678	2864	3925	2846	4105	2919	4165	3007	4396	2960	4639	2909
	32.5	3511	2750	3641	2847	3879	2826	4052	2898	4111	2985	4335	2937	4569	2885
	35.0	3482	2736	3605	2830	3833	2806	4000	2876	4056	2963	4274	2914	4500	2861
	37.5	3453	2722	3568	2813	3787	2786	3948	2855	4002	2941	4213	2892	4430	2837
	40.0	3424	2709	3531	2797	3741	2766	3895	2833	3947	2919	4152	2869	4361	2813
	43.0	3389	2692	3487	2776	3686	2742	3832	2808	3882	2893	4078	2842	4277	2785
50	20.0	4532	3420	4753	3560	5123	3560	5393	3660	5479	3764	5800	3710	6146	3653
	22.5	4532	3420	4735	3551	5078	3540	5328	3632	5411	3735	5724	3681	6059	3622
	25.0	4496	3402	4689	3529	5021	3515	5262	3604	5343	3707	5648	3651	5972	3591
	27.5	4460	3385	4643	3507	4963	3489	5197	3576	5275	3678	5571	3622	5886	3560
	30.0	4424	3367	4597	3486	4906	3463	5131	3548	5207	3650	5495	3592	5799	3529
	32.5	4388	3349	4552	3464	4848	3438	5066	3521	5139	3622	5419	3563	5712	3498
	35.0	4352	3332	4506	3442	4791	3413	5000	3493	5070	3594	5342	3534	5625	3468
	37.5	4316	3314	4460	3421	4734	3387	4934	3466	5002	3566	5266	3505	5538	3437
	40.0	4280	3297	4414	3399	4676	3362	4869	3439	4934	3538	5190	3476	5451	3407
	43.0	4237	3276	4359	3374	4607	3332	4790	3406	4852	3505	5098	3442	5347	3371
63	20.0	5710	4267	5989	4440	6455	4441	6796	4563	6904	4691	7309	4624	7744	4552
	22.5	5710	4267	5966	4429	6399	4416	6713	4528	6818	4655	7212	4586	7635	4512
	25.0	5665	4245	5908	4401	6326	4383	6630	4492	6732	4619	7116	4549	7525	4473
	27.5	5620	4222	5851	4374	6254	4351	6548	4457	6646	4583	7020	4511	7416	4433
	30.0	5574	4200	5793	4346	6181	4318	6465	4422	6560	4547	6924	4474	7306	4394
	32.5	5529	4177	5735	4319	6109	4286	6383	4387	6475	4511	6828	4437	7197	4355
	35.0	5484	4155	5677	4291	6037	4254	6300	4352	6389	4475	6731	4400	7087	4316
	37.5	5438	4133	5620	4264	5964	4222	6217	4317	6303	4440	6635	4363	6978	4278
	40.0	5393	4111	5562	4236	5892	4190	6135	4283	6217	4405	6539	4326	6868	4239
	43.0	5338	4084	5493	4204	5805	4151	6036	4241	6114	4362	6424	4282	6737	4193

Cooling capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PEFY-P-VMM-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
71	20.0	6435	4778	6750	4971	7274	4973	7659	5108	7780	5249	8237	5174	8728	5093
	22.5	6435	4778	6724	4958	7211	4944	7566	5067	7684	5208	8128	5131	8604	5047
	25.0	6385	4752	6659	4927	7130	4907	7472	5027	7587	5167	8020	5088	8481	5003
	27.5	6334	4727	6593	4895	7048	4870	7379	4987	7490	5126	7911	5045	8358	4958
	30.0	6282	4702	6528	4864	6966	4833	7286	4947	7393	5085	7803	5003	8234	4913
	32.5	6231	4676	6463	4833	6885	4797	7193	4908	7297	5045	7695	4961	8111	4869
	35.0	6180	4651	6398	4802	6803	4760	7100	4868	7200	5004	7586	4919	7987	4825
	37.5	6129	4626	6333	4770	6722	4724	7007	4829	7103	4964	7478	4877	7864	4781
	40.0	6078	4601	6268	4739	6640	4687	6914	4789	7006	4924	7369	4836	7740	4738
	43.0	6016	4571	6190	4702	6542	4644	6802	4742	6890	4876	7239	4786	7592	4686
80	20.0	7251	5192	7605	5395	8196	5402	8629	5539	8767	5680	9281	5597	9834	5507
	22.5	7251	5192	7576	5380	8125	5369	8525	5491	8658	5631	9159	5546	9695	5454
	25.0	7194	5163	7503	5343	8033	5325	8420	5444	8549	5583	9036	5496	9556	5401
	27.5	7136	5133	7429	5306	7941	5282	8315	5397	8440	5535	8914	5446	9417	5349
	30.0	7079	5104	7356	5270	7849	5239	8210	5350	8331	5487	8792	5396	9278	5296
	32.5	7021	5074	7283	5233	7758	5196	8105	5304	8222	5440	8670	5347	9139	5244
	35.0	6963	5044	7209	5197	7666	5153	8000	5257	8113	5392	8548	5298	9000	5193
	37.5	6906	5015	7136	5160	7574	5110	7895	5211	8004	5345	8426	5249	8861	5141
	40.0	6848	4986	7063	5124	7482	5068	7790	5165	7895	5298	8304	5200	8722	5090
	43.0	6779	4950	6975	5081	7371	5017	7664	5110	7764	5242	8157	5142	8555	5029
100	20.0	9063	7091	9507	7392	10245	7387	10787	7606	10958	7837	11601	7727	12293	7609
	22.5	9063	7091	9470	7375	10157	7348	10656	7551	10822	7781	11448	7669	12119	7549
	25.0	8993	7057	9378	7332	10042	7298	10525	7497	10686	7726	11296	7612	11945	7488
	27.5	8920	7023	9287	7290	9927	7248	10393	7443	10550	7671	11143	7554	11771	7428
	30.0	8848	6988	9195	7247	9812	7198	10262	7389	10413	7616	10990	7497	11597	7368
	32.5	8776	6954	9103	7205	9697	7149	10131	7336	10277	7561	10837	7440	11423	7309
	35.0	8704	6920	9012	7163	9582	7099	10000	7282	10141	7507	10685	7384	11250	7249
	37.5	8632	6886	8920	7121	9467	7050	9869	7229	10005	7452	10532	7328	11076	7190
	40.0	8560	6852	8828	7079	9352	7001	9738	7176	9868	7398	10379	7271	10902	7131
	43.0	8474	6811	8718	7028	9214	6942	9580	7112	9705	7333	10196	7204	10693	7061
125	20.0	11329	8681	11883	9043	12807	9040	13484	9300	13698	9573	14501	9437	15366	9292
	22.5	11329	8681	11837	9021	12696	8991	13320	9231	13527	9502	14310	9364	15149	9215
	25.0	11241	8639	11723	8967	12552	8928	13156	9162	13357	9432	14119	9291	14931	9138
	27.5	11151	8595	11608	8913	12408	8864	12992	9093	13187	9362	13929	9218	14714	9062
	30.0	11060	8551	11494	8860	12265	8801	12828	9025	13017	9292	13738	9145	14497	8986
	32.5	10970	8508	11379	8806	12121	8738	12664	8957	12846	9223	13547	9073	14279	8910
	35.0	10880	8464	11265	8752	11977	8676	12500	8889	12676	9153	13356	9002	14062	8835
	37.5	10790	8421	11150	8699	11834	8613	12336	8821	12506	9084	13165	8930	13845	8760
	40.0	10700	8378	11035	8646	11690	8551	12172	8754	12335	9016	12974	8859	13627	8685
	43.0	10592	8326	10898	8582	11518	8477	11975	8674	12131	8934	12745	8774	13367	8596
140	20.0	12689	9504	13309	9893	14344	9894	15102	10167	15342	10454	16241	10304	17210	10143
	22.5	12689	9504	13258	9868	14219	9838	14918	10088	15151	10373	16028	10220	16966	10055
	25.0	12590	9456	13130	9806	14058	9765	14734	10010	14960	10293	15814	10136	16723	9967
	27.5	12489	9406	13001	9745	13897	9693	14551	9931	14769	10213	15600	10053	16480	9880
	30.0	12388	9356	12873	9683	13737	9621	14367	9853	14579	10133	15386	9970	16236	9793
	32.5	12287	9307	12745	9622	13576	9549	14184	9776	14388	10054	15172	9888	15993	9706
	35.0	12186	9257	12616	9561	13415	9478	14000	9698	14197	9975	14959	9806	15749	9620
	37.5	12085	9208	12488	9500	13254	9407	13816	9621	14006	9896	14745	9724	15506	9535
	40.0	11984	9159	12360	9440	13093	9336	13633	9544	13816	9817	14531	9643	15263	9449
	43.0	11863	9100	12206	9367	12900	9251	13412	9453	13587	9724	14275	9546	14971	9348

2-6.Heating capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PEFY-P-VMM-A

SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚CWB	SHC	SHC	SHC	SHC
20	-15.0	1555	1532	1509	1500
	-10.0	1774	1751	1728	1601
	-5.0	1994	1970	1809	1601
	0.0	2213	2190	1809	1601
	2.5	2322	2250	1809	1601
	6.0	2343	2250	1809	1601
	7.5	2441	2250	1809	1601
	10.0	2605	2250	1809	1601
	12.5	2769	2250	1809	1601
	15.5	2807	2250	1809	1601
25	-15.0	1935	1907	1878	1866
	-10.0	2208	2179	2151	1992
	-5.0	2481	2452	2252	1992
	0.0	2754	2725	2252	1992
	2.5	2890	2800	2252	1992
	6.0	2915	2800	2252	1992
	7.5	3038	2800	2252	1992
	10.0	3242	2800	2252	1992
	12.5	3446	2800	2252	1992
	15.5	3493	2800	2252	1992
32	-15.0	2454	2417	2381	2366
	-10.0	2800	2763	2727	2525
	-5.0	3146	3109	2855	2525
	0.0	3491	3455	2855	2525
	2.5	3664	3550	2855	2525
	6.0	3696	3550	2855	2525
	7.5	3852	3550	2855	2525
	10.0	4111	3550	2855	2525
	12.5	4370	3550	2855	2525
	15.5	4428	3550	2855	2525
40	-15.0	3111	3064	3018	2999
	-10.0	3549	3503	3456	3201
	-5.0	3987	3941	3619	3201
	0.0	4426	4379	3619	3201
	2.5	4645	4500	3619	3201
	6.0	4686	4500	3619	3201
	7.5	4883	4500	3619	3201
	10.0	5211	4500	3619	3201
	12.5	5539	4500	3619	3201
	15.5	5613	4500	3619	3201
50	-15.0	3871	3813	3755	3732
	-10.0	4416	4359	4301	3984
	-5.0	4962	4904	4503	3984
	0.0	5508	5450	4503	3984
	2.5	5780	5600	4503	3984
	6.0	5831	5600	4503	3984
	7.5	6076	5600	4503	3984
	10.0	6484	5600	4503	3984
	12.5	6893	5600	4503	3984
	15.5	6986	5600	4503	3984
63	-15.0	4908	4835	4761	4732
	-10.0	5599	5526	5453	5051
	-5.0	6291	6218	5709	5051
	0.0	6983	6910	5709	5051
	2.5	7329	7100	5709	5051
	6.0	7393	7100	5709	5051
	7.5	7704	7100	5709	5051
	10.0	8221	7100	5709	5051
	12.5	8739	7100	5709	5051
	15.5	8857	7100	5709	5051

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚CWB	SHC	SHC	SHC	SHC
71	-15.0	5530	5447	5365	5332
	-10.0	6309	6227	6144	5691
	-5.0	7089	7006	6433	5691
	0.0	7868	7786	6433	5691
	2.5	8258	8000	6433	5691
	6.0	8330	8000	6433	5691
	7.5	8680	8000	6433	5691
	10.0	9264	8000	6433	5691
	12.5	9847	8000	6433	5691
	15.5	9979	8000	6433	5691
80	-15.0	6221	6128	6036	5998
	-10.0	7098	7005	6912	6402
	-5.0	7975	7882	7237	6402
	0.0	8852	8759	7237	6402
	2.5	9290	9000	7237	6402
	6.0	9371	9000	7237	6402
	7.5	9765	9000	7237	6402
	10.0	10421	9000	7237	6402
	12.5	11078	9000	7237	6402
	15.5	11227	9000	7237	6402
100	-15.0	7742	7626	7511	7465
	-10.0	8833	8718	8602	7967
	-5.0	9924	9809	9006	7967
	0.0	11015	10900	9006	7967
	2.5	11561	11200	9006	7967
	6.0	11662	11200	9006	7967
	7.5	12152	11200	9006	7967
	10.0	12969	11200	9006	7967
	12.5	13786	11200	9006	7967
	15.5	13971	11200	9006	7967
125	-15.0	9677	9533	9389	9331
	-10.0	11041	10897	10753	9959
	-5.0	12405	12261	11258	9959
	0.0	13769	13625	11258	9959
	2.5	14451	14000	11258	9959
	6.0	14577	14000	11258	9959
	7.5	15190	14000	11258	9959
	10.0	16211	14000	11258	9959
	12.5	17232	14000	11258	9959
	15.5	17464	14000	11258	9959
140	-15.0	11060	10895	10730	10664
	-10.0	12619	12454	12289	11381
	-5.0	14177	14012	12866	11381
	0.0	15736	15571	12866	11381
	2.5	16515	16000	12866	11381
	6.0	16660	16000	12866	11381
	7.5	17360	16000	12866	11381
	10.0	18527	16000	12866	11381
	12.5	19694	16000	12866	11381
	15.5	19959	16000	12866	11381

2-7.Cooling Capacity (In combination with PQRY-P200·250YMF-B)

PEFY-P-VMM-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Water temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚C	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	10	1914	1567	1980	1623	2105	1609	2200	1654	2229	1706	2354	1681	2486	1653
	20	1844	1535	1908	1591	2029	1577	2120	1622	2148	1674	2268	1650	2396	1623
	30	1740	1487	1800	1543	1914	1529	2000	1575	2026	1627	2140	1604	2260	1579
	40	1514	1385	1566	1441	1665	1428	1740	1475	1763	1528	1862	1507	1966	1484
	45	1427	1346	1476	1402	1569	1390	1640	1437	1661	1490	1755	1470	1853	1448
25	10	2393	1796	2475	1853	2632	1837	2750	1880	2786	1931	2943	1901	3108	1868
	20	2306	1754	2385	1810	2536	1795	2650	1838	2684	1889	2836	1860	2995	1828
	30	2175	1690	2250	1747	2393	1732	2500	1776	2533	1827	2675	1799	2825	1769
	40	1892	1557	1958	1613	2081	1599	2175	1644	2203	1696	2327	1671	2458	1644
	45	1784	1507	1845	1563	1962	1549	2050	1594	2077	1647	2194	1623	2317	1597
32	10	3015	2239	3119	2308	3316	2289	3465	2340	3510	2402	3708	2365	3915	2323
	20	2905	2184	3005	2254	3195	2234	3339	2287	3382	2349	3573	2312	3773	2272
	30	2741	2104	2835	2173	3015	2154	3150	2207	3191	2270	3371	2235	3560	2197
	40	2384	1934	2466	2003	2623	1985	2741	2039	2776	2103	2932	2072	3097	2038
	45	2247	1870	2325	1939	2472	1922	2583	1977	2617	2040	2764	2011	2919	1979
40	10	3828	2904	3960	2997	4211	2971	4400	3042	4457	3127	4708	3078	4972	3025
	20	3689	2836	3816	2929	4058	2904	4240	2975	4295	3060	4537	3013	4791	2962
	30	3480	2735	3600	2828	3828	2804	4000	2876	4052	2961	4280	2917	4520	2868
	40	3028	2523	3132	2615	3330	2592	3480	2667	3525	2753	3724	2713	3932	2669
	45	2854	2443	2952	2535	3139	2513	3280	2588	3323	2675	3510	2636	3706	2595
50	10	4785	3545	4950	3655	5264	3624	5500	3705	5572	3803	5885	3743	6215	3678
	20	4611	3459	4770	3568	5072	3538	5300	3620	5369	3718	5671	3660	5989	3597
	30	4350	3331	4500	3440	4785	3410	5000	3493	5065	3592	5350	3537	5650	3477
	40	3785	3061	3915	3169	4163	3141	4350	3227	4407	3327	4655	3277	4916	3224
	45	3567	2959	3690	3067	3924	3040	4100	3127	4153	3227	4387	3180	4633	3129
63	10	6029	4426	6237	4561	6632	4522	6930	4622	7020	4741	7415	4666	7831	4584
	20	5810	4316	6010	4451	6391	4413	6678	4513	6765	4633	7145	4560	7546	4480
	30	5481	4154	5670	4288	6029	4250	6300	4352	6382	4473	6741	4403	7119	4327
	40	4768	3811	4933	3944	5245	3909	5481	4013	5552	4136	5865	4074	6194	4006
	45	4494	3682	4649	3815	4944	3781	5166	3887	5233	4009	5528	3950	5838	3886
71	10	6795	4958	7029	5108	7474	5064	7810	5174	7912	5305	8357	5221	8825	5128
	20	6548	4834	6773	4982	7202	4940	7526	5050	7624	5183	8053	5101	8504	5011
	30	6177	4650	6390	4798	6795	4756	7100	4868	7192	5001	7597	4923	8023	4838
	40	5374	4261	5559	4408	5911	4369	6177	4484	6257	4619	6609	4550	6980	4474
	45	5065	4115	5240	4262	5572	4224	5822	4341	5898	4476	6230	4410	6579	4338
80	10	7656	5404	7920	5555	8422	5510	8800	5616	8914	5746	9416	5653	9944	5550
	20	7378	5258	7632	5409	8115	5364	8480	5471	8590	5602	9074	5511	9582	5411
	30	6960	5043	7200	5192	7656	5149	8000	5257	8104	5389	8560	5303	9040	5208
	40	6055	4590	6264	4737	6661	4697	6960	4809	7050	4942	7447	4866	7865	4782
	45	5707	4421	5904	4568	6278	4528	6560	4642	6645	4776	7019	4703	7413	4623
100	10	9570	7336	9900	7576	10527	7510	11000	7694	11143	7913	11770	7791	12430	7657
	20	9222	7167	9540	7407	10144	7343	10600	7528	10738	7747	11342	7629	11978	7500
	30	8700	6918	9000	7157	9570	7094	10000	7282	10130	7502	10700	7390	11300	7267
	40	7569	6390	7830	6628	8326	6569	8700	6762	8813	6985	9309	6884	9831	6774
	45	7134	6191	7380	6429	7847	6372	8200	6567	8307	6790	8774	6694	9266	6589
125	10	11963	8992	12375	9277	13159	9197	13750	9412	13929	9669	14713	9518	15538	9353
	20	11528	8778	11925	9063	12680	8984	13250	9201	13422	9459	14178	9313	14973	9153
	30	10875	8462	11250	8746	11963	8669	12500	8889	12663	9148	13375	9009	14125	8856
	40	9461	7794	9788	8076	10407	8004	10875	8230	11016	8492	11636	8367	12289	8232
	45	8918	7542	9225	7824	9809	7755	10250	7983	10383	8246	10968	8127	11583	7998
140	10	13398	9858	13860	10160	14738	10073	15400	10296	15600	10564	16478	10397	17402	10213
	20	12911	9615	13356	9915	14202	9830	14840	10055	15033	10323	15879	10162	16769	9984
	30	12180	9254	12600	9553	13398	9471	14000	9698	14182	9968	14980	9814	15820	9645
	40	10597	8493	10962	8790	11656	8713	12180	8947	12338	9221	13033	9083	13763	8933
	45	9988	8208	10332	8504	10986	8429	11480	8666	11629	8941	12284	8810	12972	8667

2-8.Heating Capacity (In combination with PQRY-P200·250YMF-B)

PEFY-P-VMM-A

SHC:Sensible heat Capacity(kcal/h)

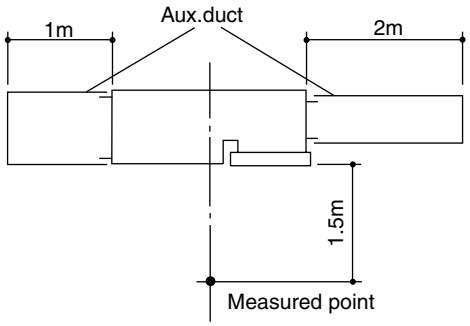
Unit size	Water temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚C	SHC	SHC	SHC	SHC
20	10	1951	1913	1549	1377
	20	2295	2250	1823	1620
	30	2295	2250	1823	1620
	40	2387	2340	1895	1685
	45	2616	2565	2078	1847
25	10	2428	2380	1928	1714
	20	2856	2800	2268	2016
	30	2856	2800	2268	2016
	40	2970	2912	2359	2097
	45	3256	3192	2586	2298
32	10	3078	3018	2444	2173
	20	3621	3550	2876	2556
	30	3621	3550	2876	2556
	40	3766	3692	2991	2658
	45	4128	4047	3278	2914
40	10	3902	3825	3098	2754
	20	4590	4500	3645	3240
	30	4590	4500	3645	3240
	40	4774	4680	3791	3370
	45	5233	5130	4155	3694
50	10	4855	4760	3856	3427
	20	5712	5600	4536	4032
	30	5712	5600	4536	4032
	40	5940	5824	4717	4193
	45	6512	6384	5171	4596
63	10	6156	6035	4888	4345
	20	7242	7100	5751	5112
	30	7242	7100	5751	5112
	40	7532	7384	5981	5316
	45	8256	8094	6556	5828

Unit size	Water temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚C	SHC	SHC	SHC	SHC
71	10	6936	6800	5508	4896
	20	8160	8000	6480	5760
	30	8160	8000	6480	5760
	40	8486	8320	6739	5990
	45	9302	9120	7387	6566
80	10	7803	7650	6197	5508
	20	9180	9000	7290	6480
	30	9180	9000	7290	6480
	40	9547	9360	7582	6739
	45	10465	10260	8311	7387
100	10	9710	9520	7711	6854
	20	11424	11200	9072	8064
	30	11424	11200	9072	8064
	40	11881	11648	9435	8387
	45	13023	12768	10342	9193
125	10	12138	11900	9639	8568
	20	14280	14000	11340	10080
	30	14280	14000	11340	10080
	40	14851	14560	11794	10483
	45	16279	15960	12928	11491
140	10	13872	13600	11016	9792
	20	16320	16000	12960	11520
	30	16320	16000	12960	11520
	40	16973	16640	13478	11981
	45	18605	18240	14774	13133

3. Sound levels

3-1. Noise level(VMM-A)

Ceiling concealed (VMM-A series)



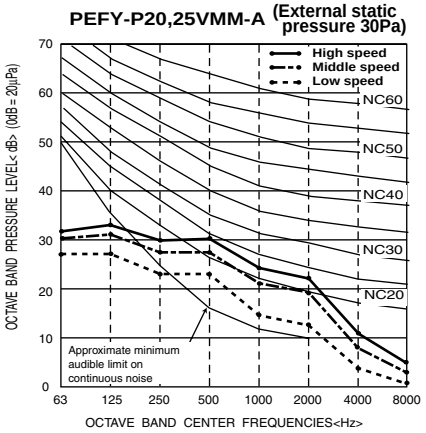
Noise level at anechoic room (Low-Middle-High) Unit : dB(A)

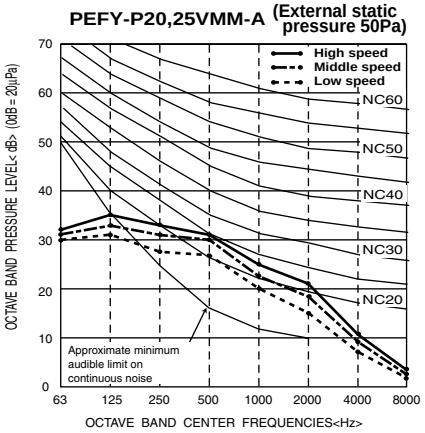
Model	External static pressure※		
	Low	Mid	High
PEFY-P20VMM-A PEFY-P25VMM-A	23-28-31	27-30-32	29-34-39
PEFY-P32VMM-A	26-30-33	28-32-35	32-36-39
PEFY-P40VMM-A	29-32-35	31-34-37	33-37-41
PEFY-P50VMM-A	29-34-37	31-35-38	34-38-41
PEFY-P63VMM-A	30-34-37	31-35-38	34-38-41
PEFY-P71VMM-A PEFY-P80VMM-A	31-34-37	32-36-39	35-39-42
PEFY-P100VMM-A	40-44	-	43-47
PEFY-P125VMM-A	42-45	-	44-47
PEFY-P140VMM-A	42-45	-	44-47

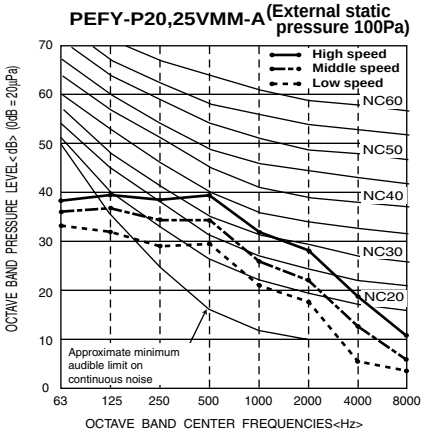
※ PEFY-P20~80VMM-A
Low : 30Pa Mid : 50Pa High : 100Pa
※ PEFY-P100~140VMM-A
Low : 50Pa High : 130Pa

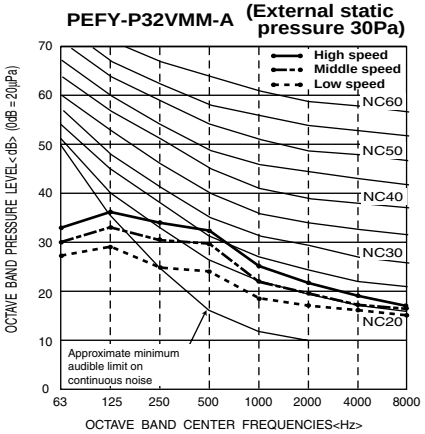
3-2. NC curves(VMM-A)

1) Back inlet

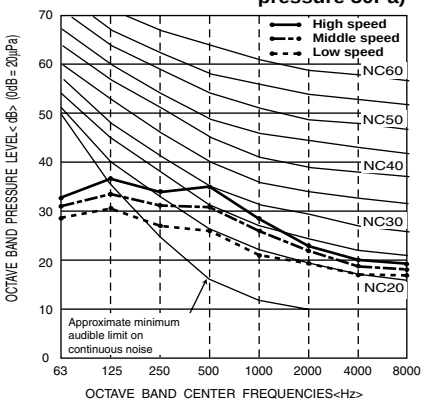




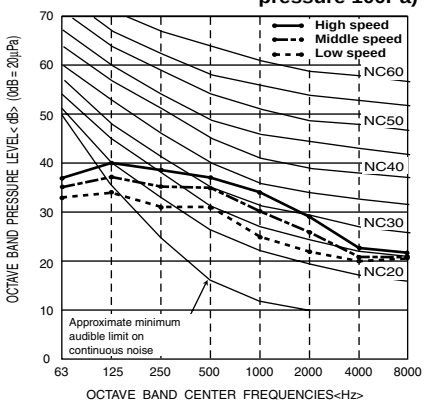




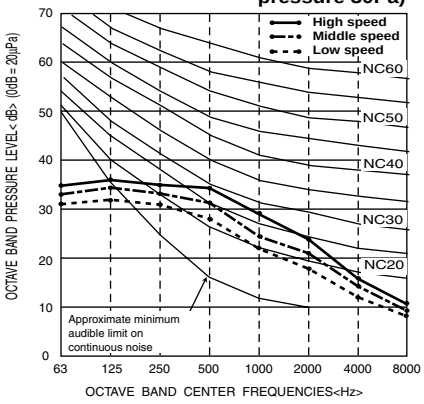
PEFY-P32VMM-A (External static pressure 50Pa)



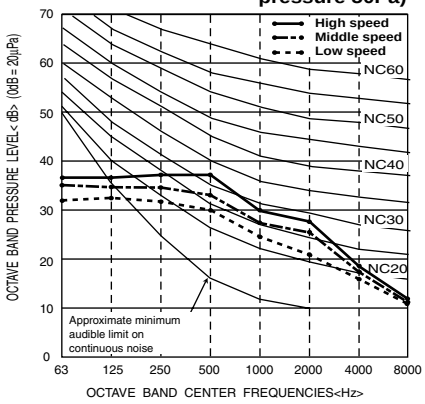
PEFY-P32VMM-A (External static pressure 100Pa)



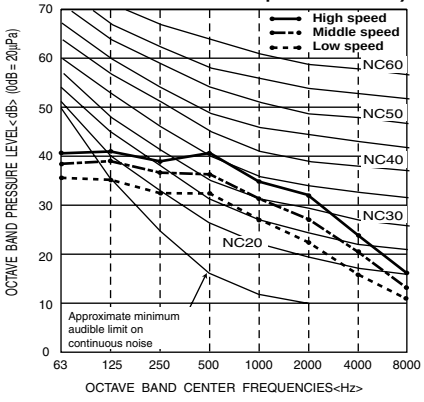
PEFY-P40VMM-A (External static pressure 30Pa)



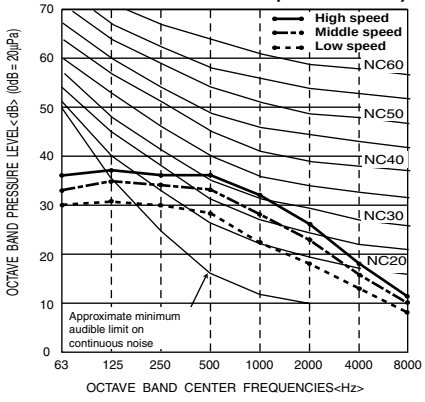
PEFY-P40VMM-A (External static pressure 50Pa)



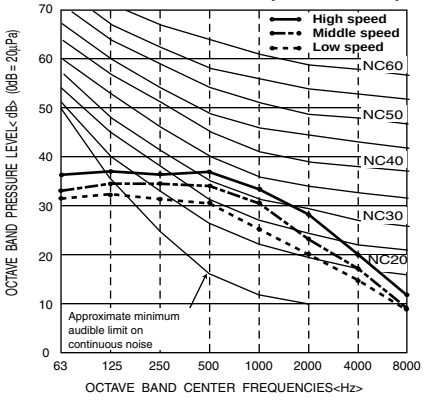
PEFY-P40VMM-A (External static pressure 100Pa)



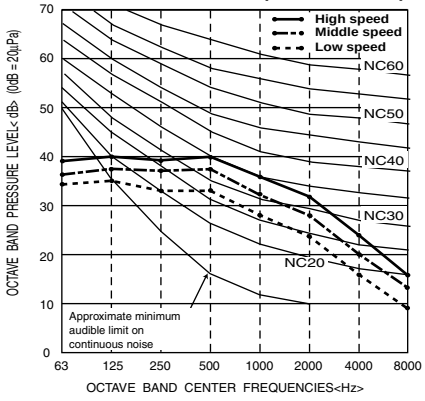
PEFY-P50VMM-A (External static pressure 30Pa)



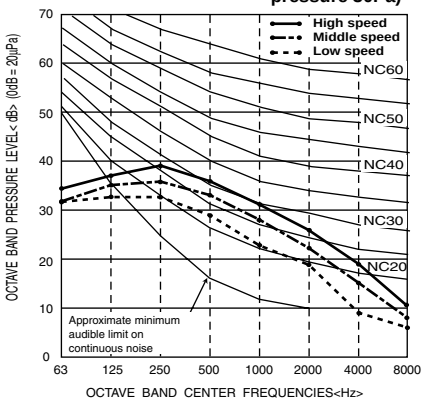
PEFY-P50VMM-A (External static pressure 50Pa)



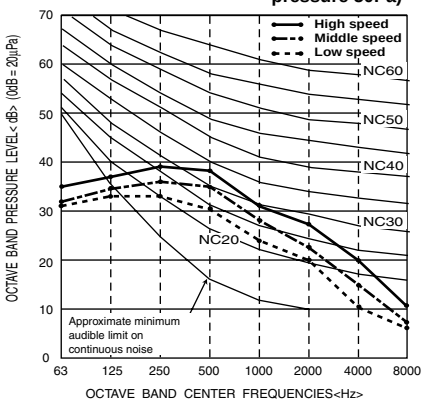
PEFY-P50VMM-A (External static pressure 100Pa)



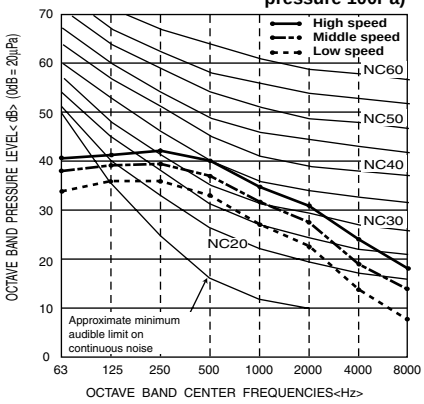
PEFY-P63VMM-A (External static pressure 30Pa)



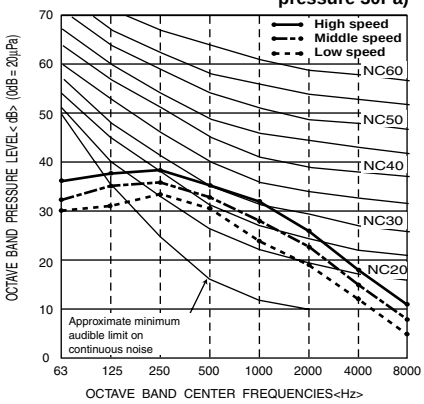
PEFY-P63VMM-A (External static pressure 50Pa)



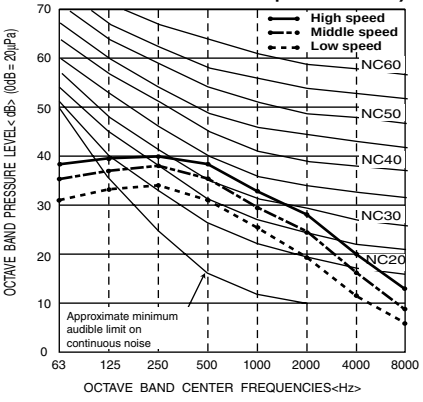
PEFY-P63VMM-A (External static pressure 100Pa)



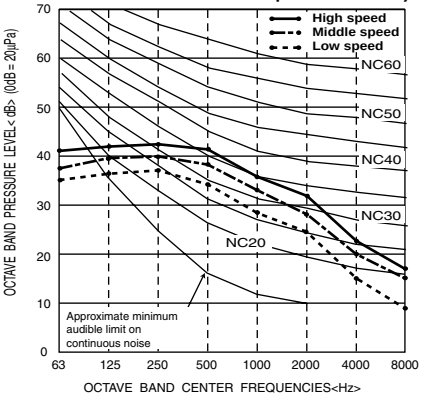
PEFY-P71,80VMM-A (External static pressure 30Pa)



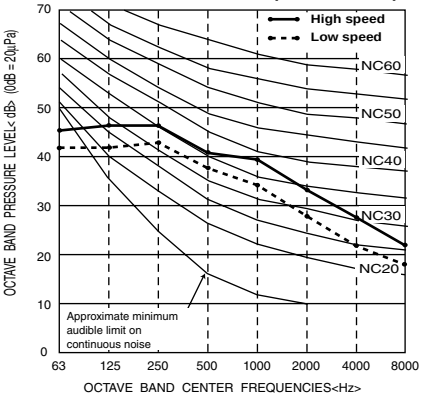
PEFY-P71,80VMM-A (External static pressure 50Pa)



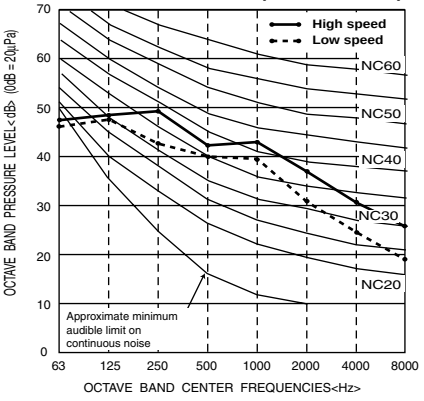
PEFY-P71,80VMM-A (External static pressure 100Pa)

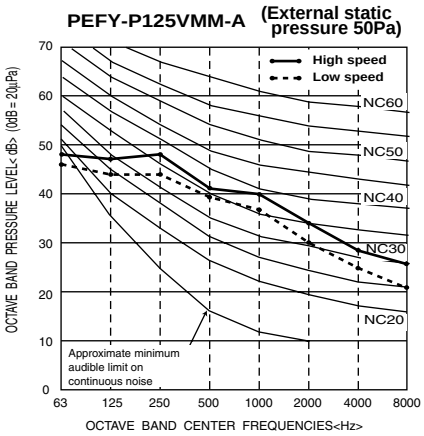


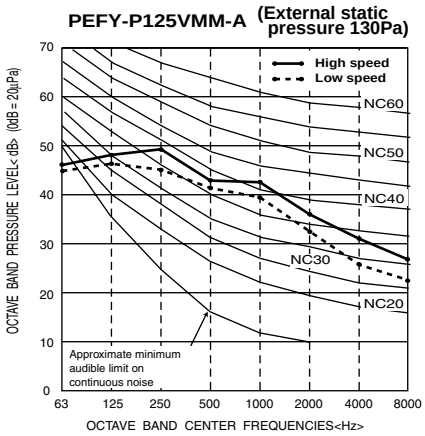
PEFY-P100VMM-A (External static pressure 50Pa)

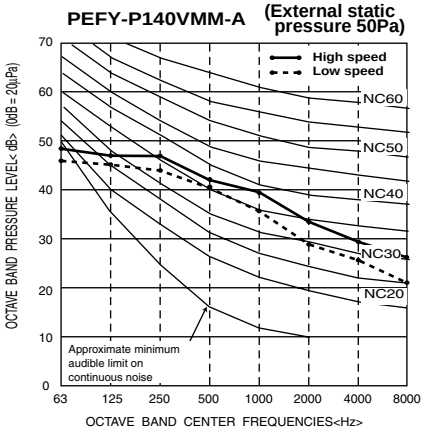


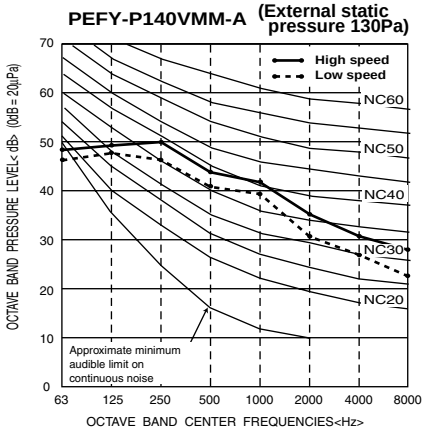
PEFY-P100VMM-A (External static pressure 130Pa)



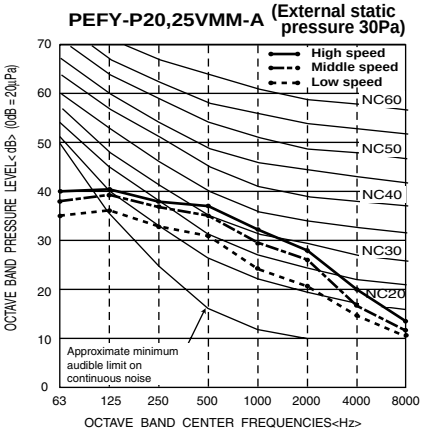


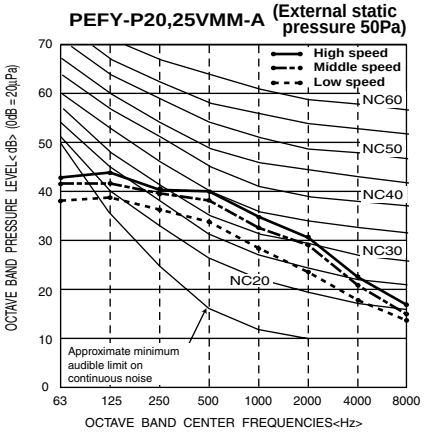




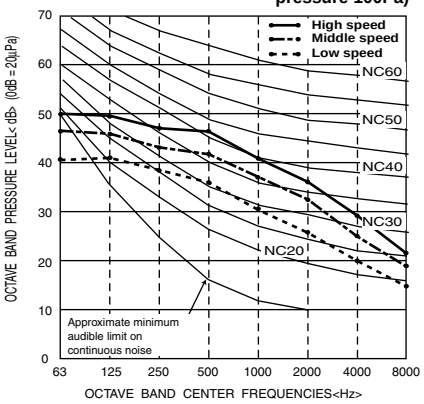


2) Bottom inlet

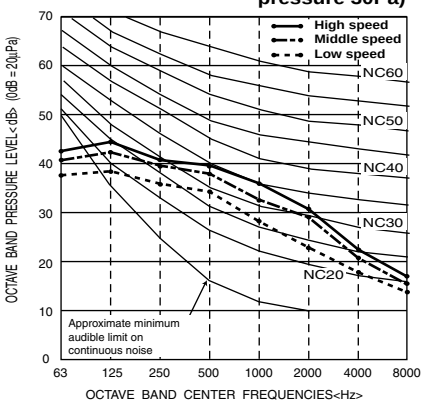




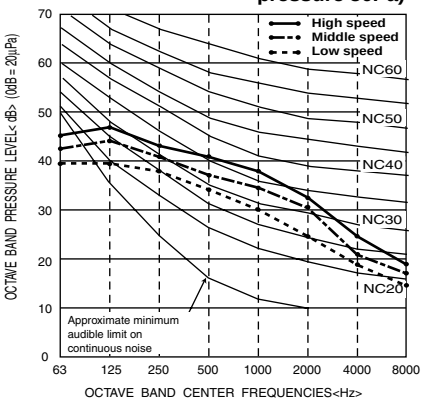
PEFY-P20,25VMM-A (External static pressure 100Pa)



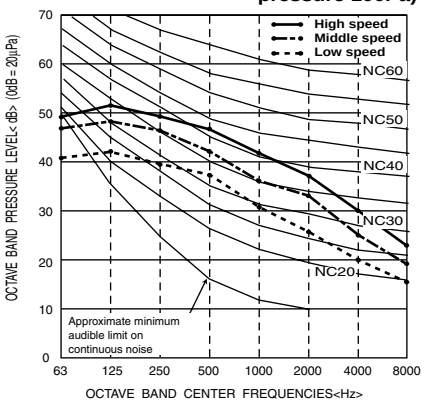
PEFY-P32VMM-A (External static pressure 30Pa)



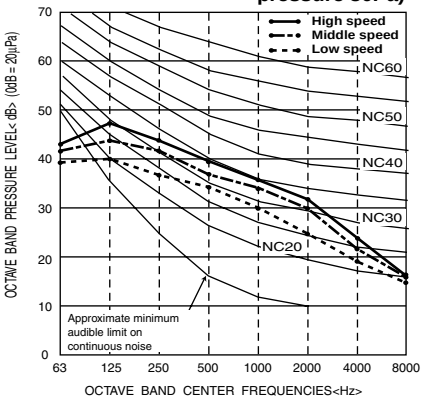
PEFY-P32VMM-A (External static pressure 50Pa)



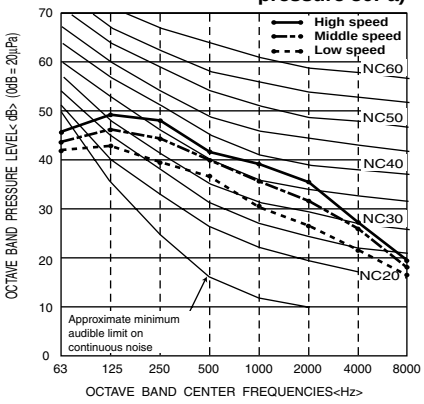
PEFY-P32VMM-A (External static pressure 100Pa)



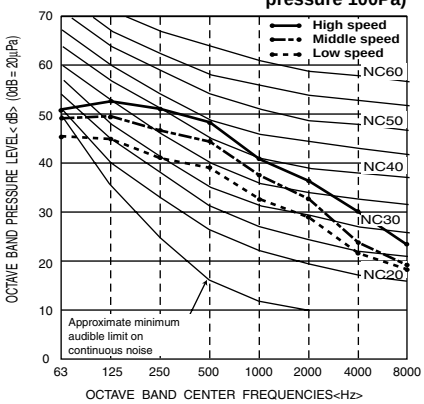
PEFY-P40VMM-A (External static pressure 30Pa)



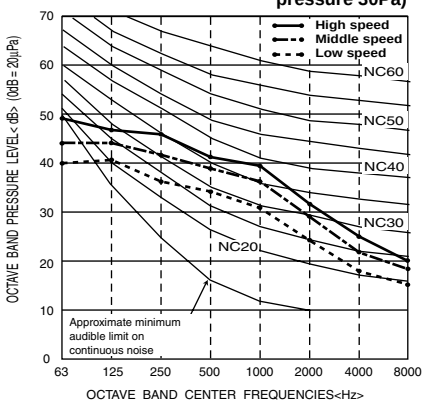
PEFY-P40VMM-A (External static pressure 50Pa)



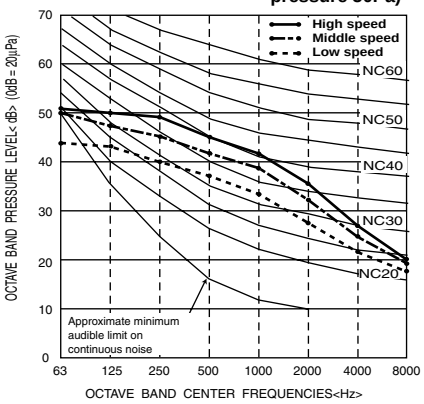
PEFY-P40VMM-A (External static pressure 100Pa)



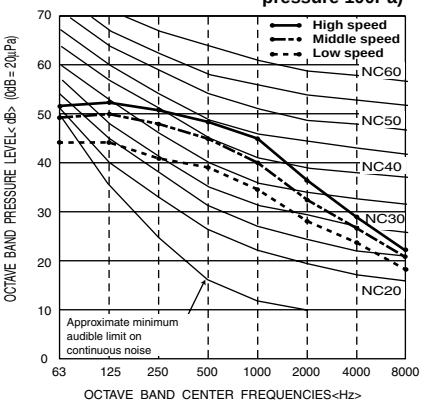
PEFY-P50VMM-A (External static pressure 30Pa)



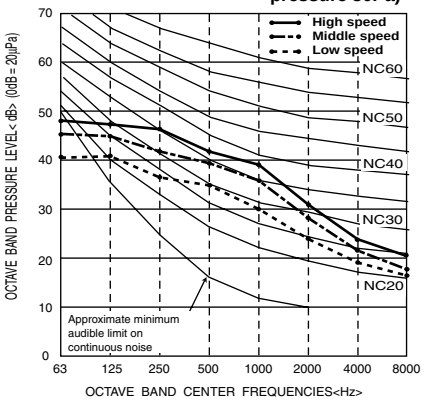
PEFY-P50VMM-A (External static pressure 50Pa)



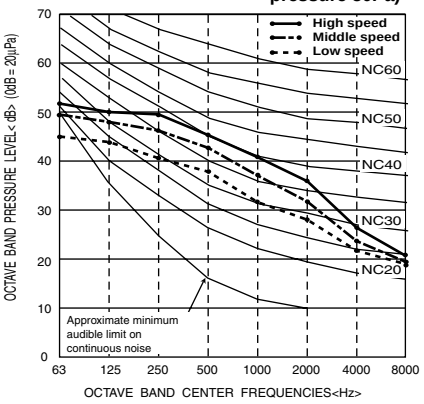
PEFY-P50VMM-A (External static pressure 100Pa)



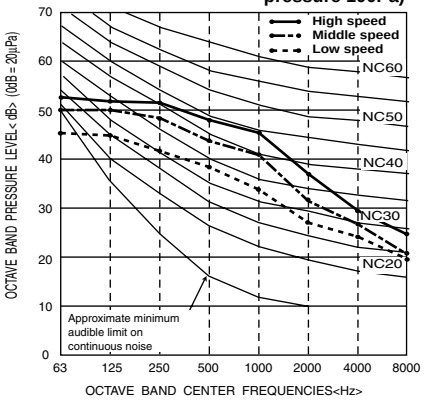
PEFY-P63VMM-A (External static pressure 30Pa)



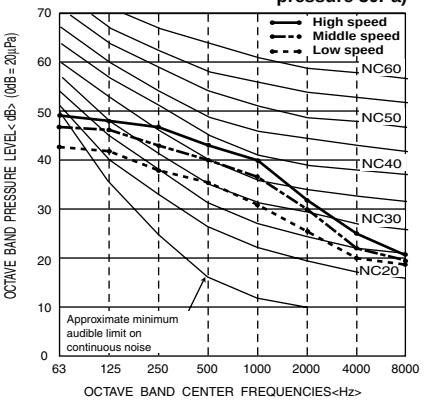
PEFY-P63VMM-A (External static pressure 50Pa)



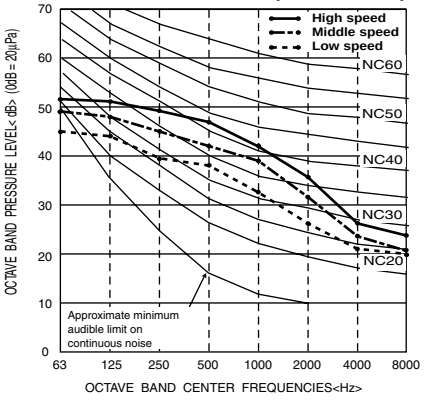
PEFY-P63VMM-A (External static pressure 100Pa)



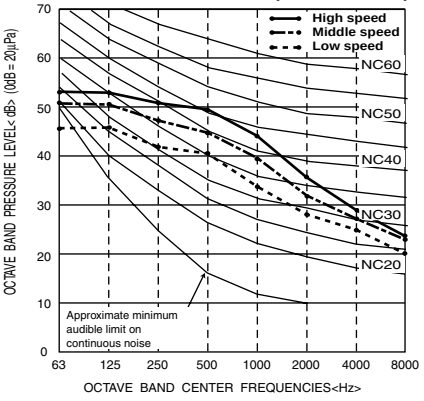
PEFY-P71,80VMM-A (External static pressure 30Pa)



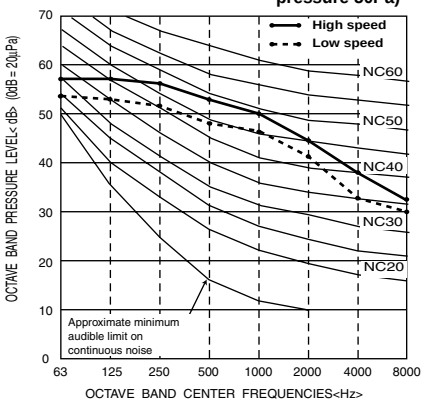
PEFY-P71,80VMM-A (External static pressure 50Pa)



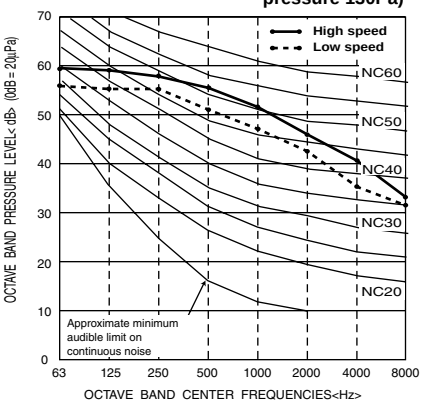
PEFY-P71,80VMM-A (External static pressure 100Pa)



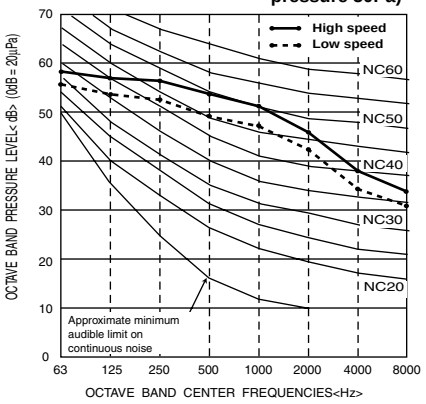
PEFY-P100VMM-A (External static pressure 50Pa)



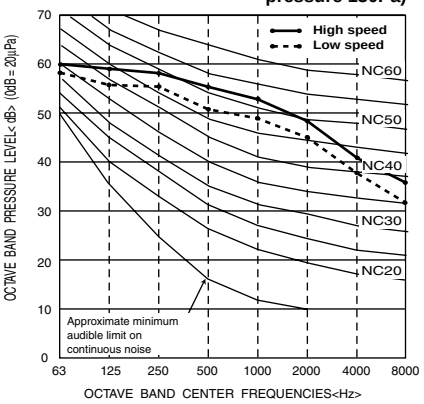
PEFY-P100VMM-A (External static pressure 130Pa)



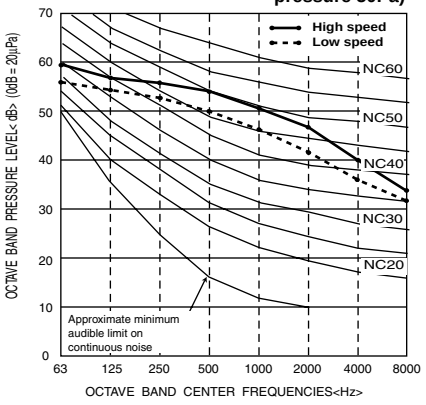
PEFY-P125VMM-A (External static pressure 50Pa)



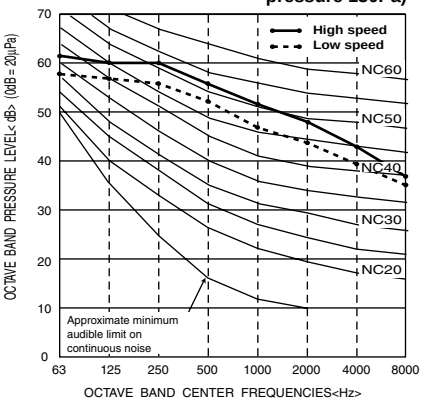
PEFY-P125VMM-A (External static pressure 130Pa)



PEFY-P140VMM-A (External static pressure 50Pa)

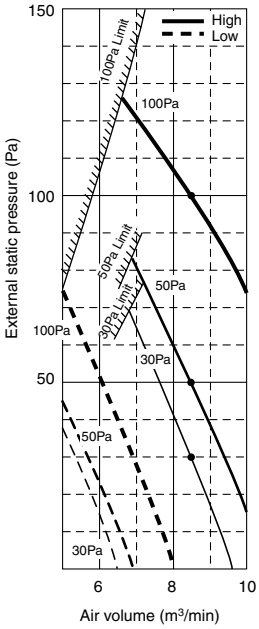


PEFY-P140VMM-A (External static pressure 130Pa)

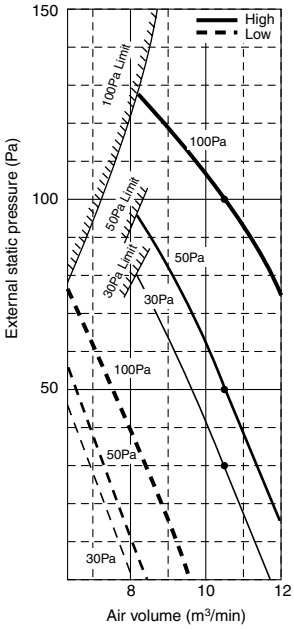


3-3. Fan characteristics curves(VMM-A)

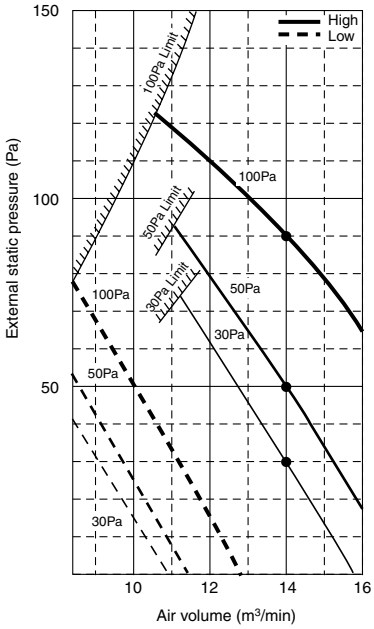
PEFY-P20,25VMM-A
External static pressure : 30,50,100Pa
Power source : 220·240(V)



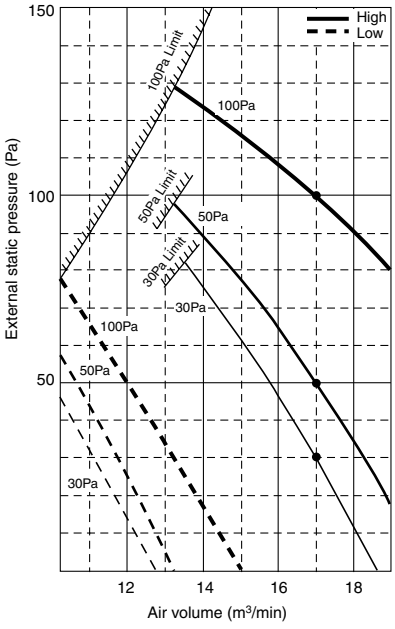
PEFY-P32VMM-A
External static pressure : 30,50,100Pa
Power source : 220·240(V)



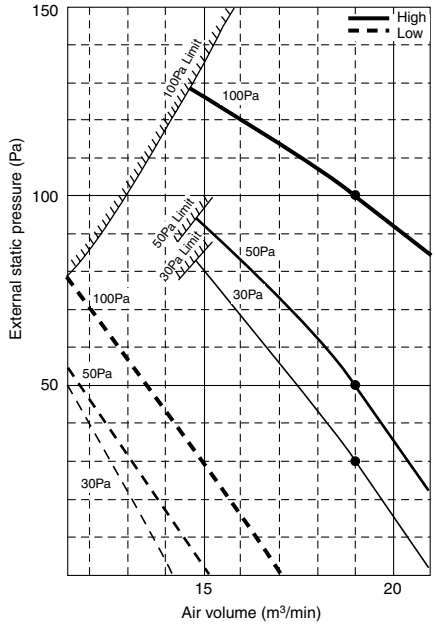
PEFY-P40VMM-A
External static pressure : 30,50,100Pa
Power source : 220·240(V)



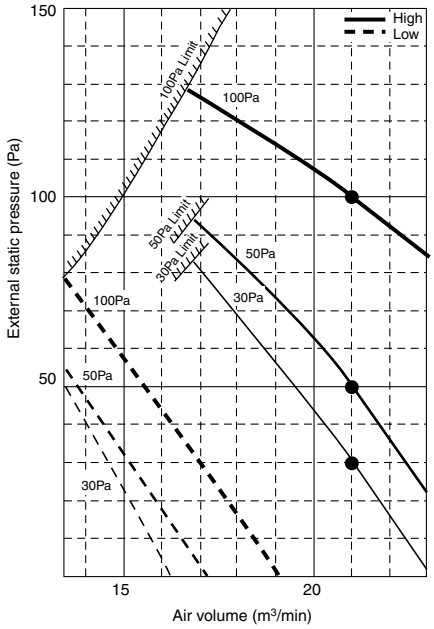
PEFY-P50VMM-A
External static pressure : 30,50,100Pa
Power source : 220·240(V)



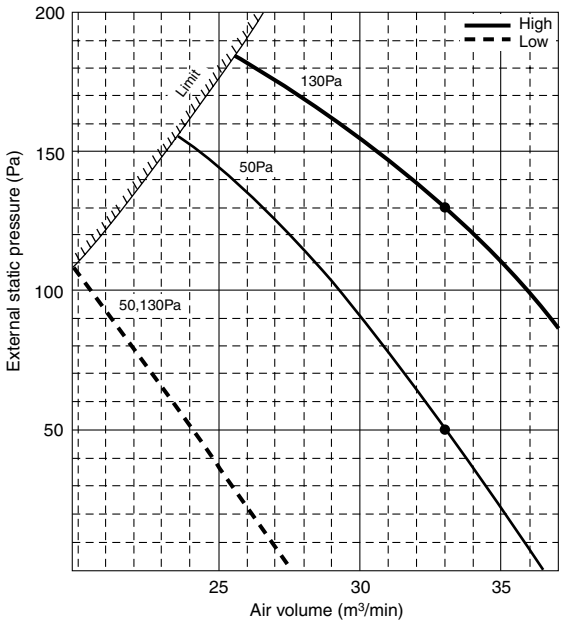
PEFY-P63VMM-A
External static pressure : 30,50,100Pa
Power source : 220·240(V)



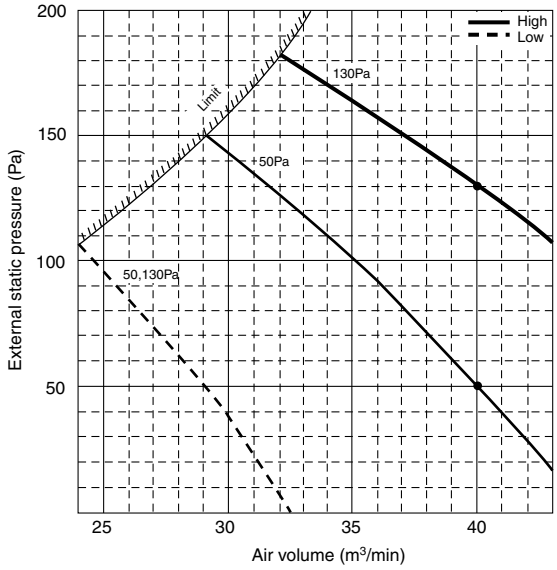
PEFY-P71,80VMM-A
External static pressure : 30,50,100Pa
Power source : 220·240(V)



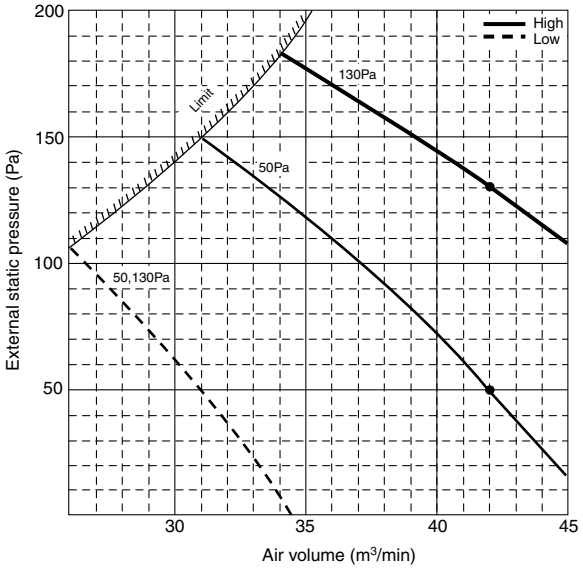
PEFY-P100VMM-A
External static pressure : 50,130Pa
Power source : 220·240(V)



PEFY-P125VMM-A
External static pressure : 50,130Pa
Power source : 220·240(V)



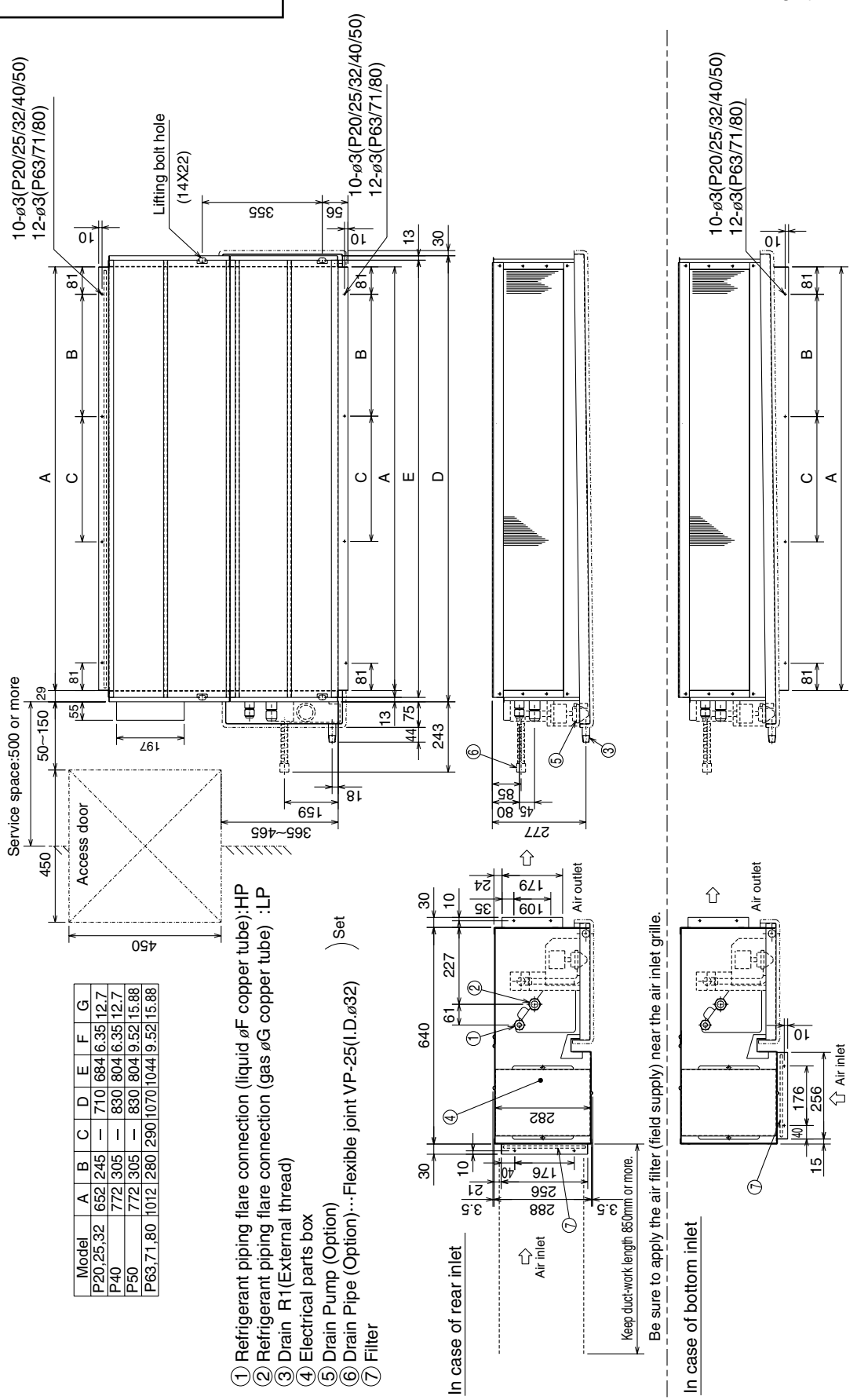
PEFY-P140VMM-A
External static pressure : 50,130Pa
Power source : 220·240(V)



4. External Dimensions

PEFY-P20,25,32,40,50,63,71,80VMM-A

Unit : mm

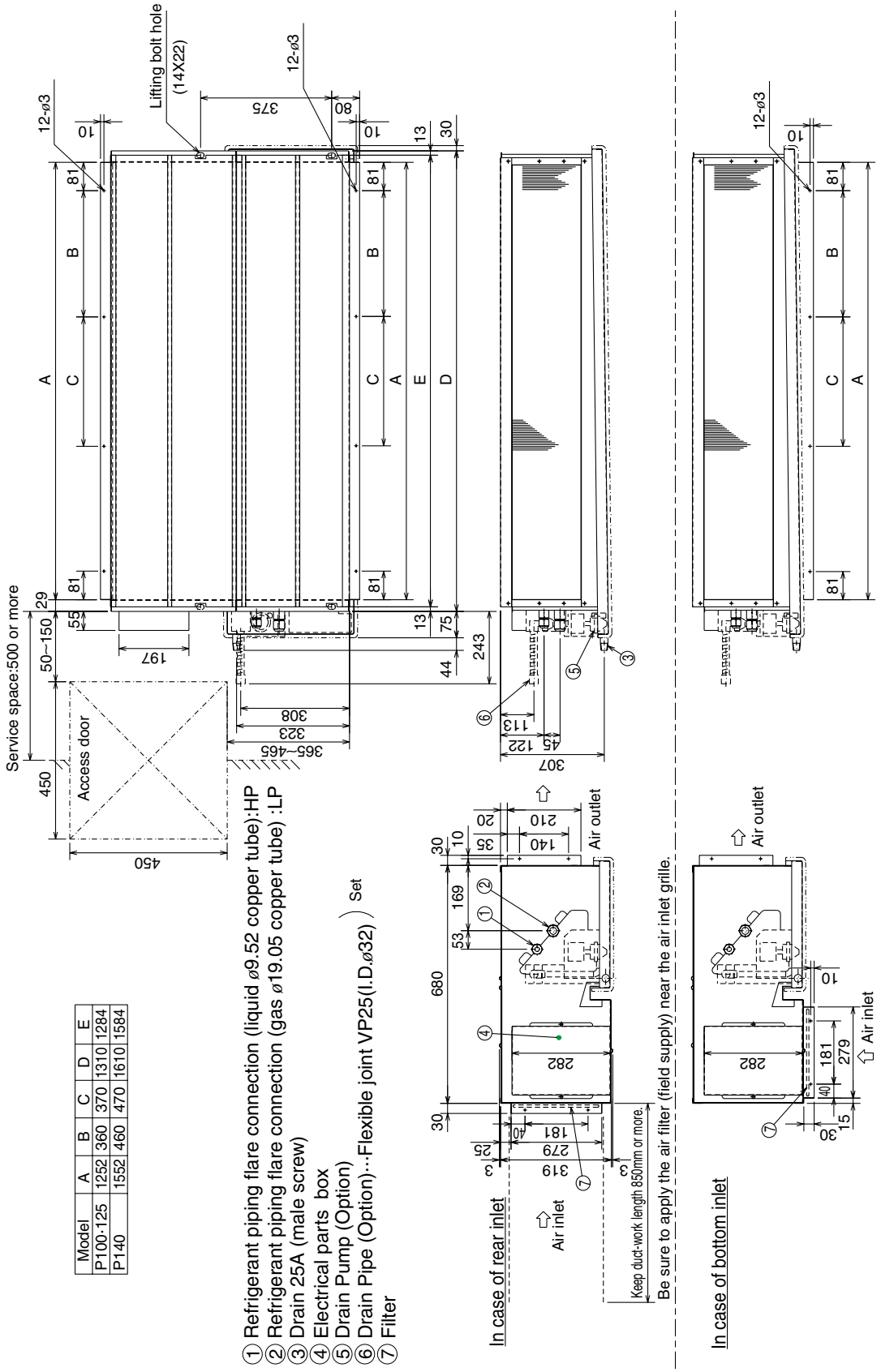


Model	A	B	C	D	E	F	G
P20,25,32	652	245	—	710	684	6.35	12.7
P40	772	305	—	830	804	6.35	12.7
P50	772	305	—	830	804	9.52	15.88
P63,71,80	1012	280	290	1070	1044	9.52	15.88

① Refrigerant piping flare connection (liquid øF copper tube):HP
② Refrigerant piping flare connection (gas øG copper tube) :LP
③ Drain R1(External thread)
④ Electrical parts box
⑤ Drain Pump (Option)
⑥ Drain Pipe (Option)···Flexible joint VP-25(I.D.ø32) } Set
⑦ Filter

PEFY-P100,125,140VMM-A

Unit : mm

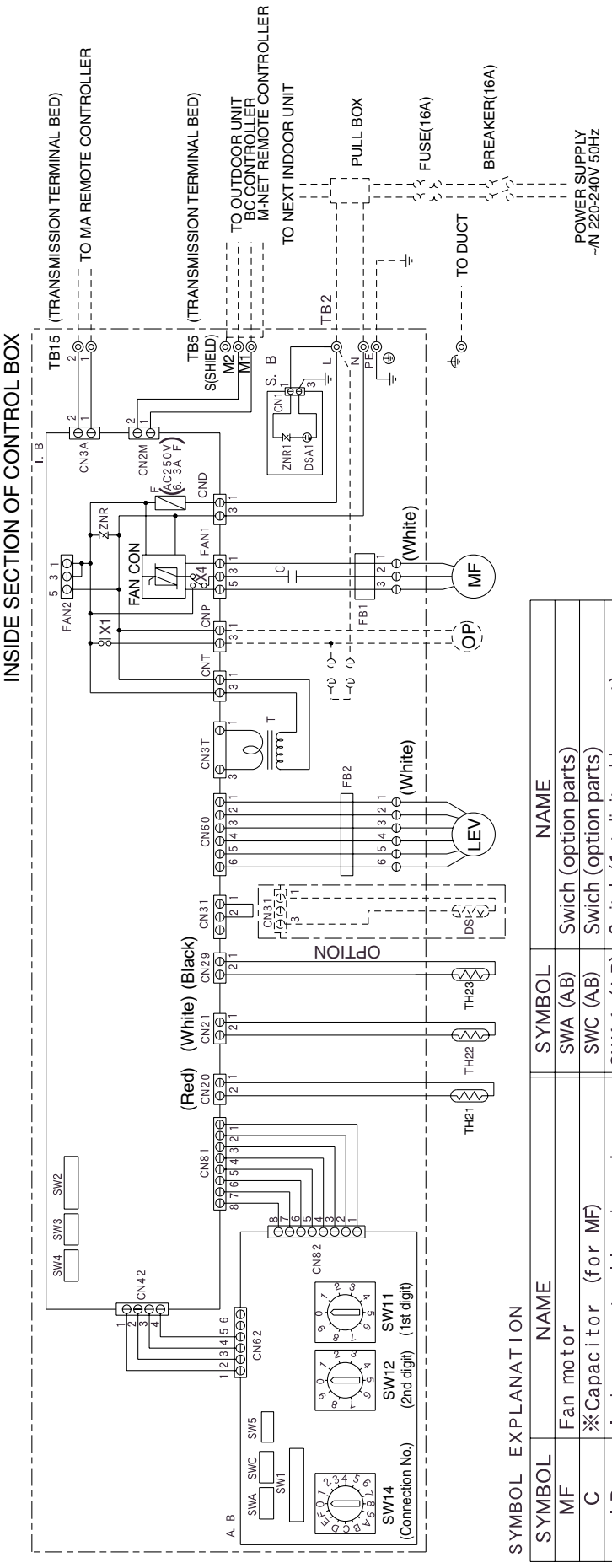


Model	A	B	C	D	E
P100-125	1252	360	370	1310	1284
P140	1552	460	470	1610	1584

① Refrigerant piping flare connection (liquid ø9.52 copper tube):HP
② Refrigerant piping flare connection (gas ø19.05 copper tube) :LP
③ Drain 25A (male screw)
④ Electrical parts box
⑤ Drain Pump (Option)
⑥ Drain Pipe (Option)···Flexible joint VP25(I.D.ø32)) Set
⑦ Filter

5. Electrical Wiring Diagrams

PEFY-P20~80VMM-A



NOTE; 1. TB2, TB5 shown in dotted line are field work.
2. Mark ◎ indicates terminal bed, ⊖ connector, ⊖ board insertion connector or fastening connector of control board.

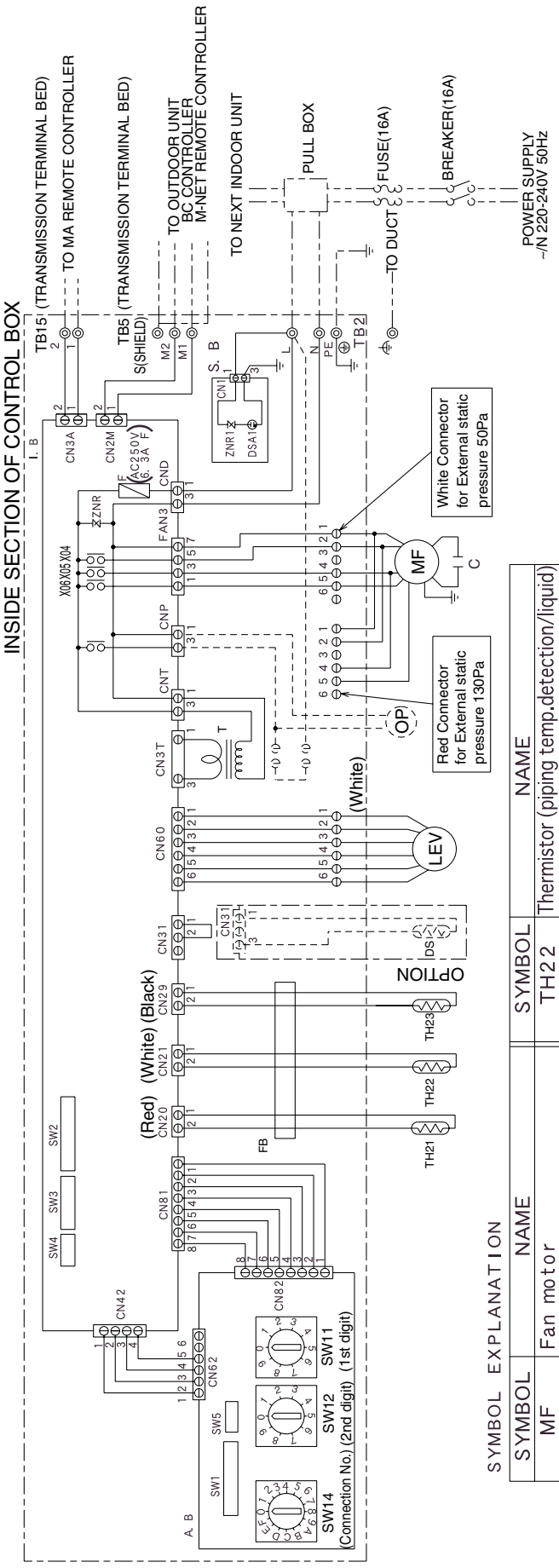
※Capacitor
MODELS 20/25/32/40/50 8 **μF**
MODELS 63/71/80 6 **μF**

SYMBOL EXPLANATION

SYMBOL	NAME
MF	Fan motor
C	※Capacitor (for MF)
I.B	Indoor controller board
A.B	Address board
TB2	Power source terminal bed
TB5	Transmission terminal bed
TB15	Transmission terminal bed
F	Fuse AC250V 6.3A F
T	Transformer
LEV	Electronic linear expan. valve
TH21	Thermistor (inlet temp.detection)
TH22	Thermistor (piping temp.detection/liquid)
TH23	Thermistor (piping temp.detection/gas)

SYMBOL	NAME
SWA (A.B)	Swich (option parts)
SWC (A.B)	Swich (option parts)
SW11 (A.B)	Switch (1st digit address set)
SW12 (A.B)	Switch (2nd digit address set)
SW14 (A.B)	Switch (connection No.set)
SW1 (A.B)	Switch(for mode selection)
SW2 (I.B)	Switch(for capacity code)
SW3 (I.B)	Switch(for mode selection)
SW4 (I.B)	Switch(for model selection)
SW5 (A.B)	Switch(for voltage selection)
FB1,2	Ferrite core
S.B	Surge absorber board
DP	Drainpump
DS	Drainsensor

PEFY-P100~140VMM-A



NOTE;1.TB2,TB5 shown in dotted line are field work.
2.Mark ◎ indicates terminal bed, ⊖connector, ⊟board insertion connector or fastening connector of control board.

※Capacitor
MODELS 100/125/140 8μF

SYMBOL EXPLANATION

SYMBOL	NAME	SYMBOL	NAME
MF	Fan motor	TH22	Thermistor (piping temp.detection/liquid)
C	Capacitor (for MF)	TH23	Thermistor (piping temp.detection/gas)
I.B	Indoor controller board	SW11 (A.B)	Switch (1st digit address set)
A.B	Address board	SW12 (A.B)	Switch (2nd digit address set)
TB2	Power source terminal bed	SW14 (A.B)	Switch (connection No.set)
TB15	Transmission terminal bed	SW1 (A.B)	Switch(for mode selection)
TB5	Transmission terminal bed	SW2 (I.B)	Switch(for capacity code)
F	Fuse AC250V 6. 3A F	SW3 (I.B)	Switch(for mode selection)
T	Transformer	SW4 (I.B)	Switch(for model selection)
LEV	Electronic linear expan. valve	SW5 (A.B)	Switch(for voltage selection)
S.B	Surge absorber board	X04~06	Aux. relay
FB	Ferrite core	DP	Drainpump
TH21	Thermistor (inlet temp.detection)	DS	Drainsensor

6. Options

Description	Model	Applicable capacity
Circular duct flange	PAC-KE32EDF-F	PEFY-P20,25,32VMM-A
	PAC-KE50EDF-F	PEFY-P40,50VMM-A
	PAC-KE80EDF-F	PEFY-P63,71,80VMM-A
	PAC-KE125EDF-F	PEFY-P100,125VMM-A
	PAC-KE140EDF-F	PEFY-P140VMM-A
Drain water lift-up kit	PAC-KE03DM-F	PEFY-P20,25,32,40,50,63,71 80,100,125,140VMM-A

Ceiling mounted built-in PDFY-P-VM-A

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1. Specifications

				PDFY-P20VM-A	PDFY-P25VM-A	PDFY-P32VM-A	PDFY-P40VM-A	PDFY-P50VM-A
Power source				~ 220-240V 50Hz / ~ 220V 60Hz				
Cooling capacity	※1		kW	2.2	2.8	3.6	4.5	5.6
	※2		kcal/h	2,000	2,500	3,150	4,000	5,000
Heating capacity			kW	2.5	3.2	4.0	5.0	6.3
Power consumption (50/60Hz)		Cooling	kW	0.11/0.12			0.13/0.15	
		Heating	kW	0.11/0.12			0.13/0.15	
Current		Cooling	A	0.53/0.58			0.60/0.71	
		Heating	A	0.53/0.58			0.60/0.71	
External finish				Galvanizing				
Dimension		Height	mm	295				
		Width	mm	710			960	
		Depth	mm	735				
Net weight			kg	25.5		27	32	34
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)				
Fan	Type			Sirocco fan× 1			Sirocco fan× 2	
	Airflow rate (Lo-Mid2-Mid1-Hi)		m^3/min	6.0-6.5-7.5-8.5			10.0-11.0-12.5-14.0	
	External static pressure ※3		Pa	30/50/100				
Motor	Type			Single phase induction motor				
	Output ※4		kW	0.075(at 240V)				
Air filter ※5				Synthethic fiber unwoven cloth filter(long life)				
Refrigerant pipe dimension		Gas (Flare)	mm	ø 12.7				ø 15.88
		Liqud (Flare)	mm	ø 6.35				ø 9.52
Drain pipe dimension				Outer diameter 32(VP-25)				
Noise level (Lo-Mid2-Mid1-Hi)			dB(A)	28-30-33-36			34-36-37-39	

				PDFY-P63VM-A	PDFY-P71VM-A	PDFY-P80VM-A	PDFY-P100VM-A	PDFY-P125VM-A
Power source				~ 220-240V 50Hz / ~ 220V 60Hz				
Cooling capacity	※1		kW	7.1	8.0	9.0	11.2	14.0
	※2		kcal/h	6,300	7,100	8,000	10,000	12,500
Heating capacity	※1		kW	8.0	9.0	10.0	12.5	16.0
Power consumption		Cooling	kW	0.14/0.17	0.15/0.18	0.17/0.21	0.27-0.31/0.29	0.33-0.38/0.39
		Heating	kW	0.14/0.17	0.15/0.18	0.17/0.21	0.27-0.31/0.29	0.33-0.38/0.39
Current		Cooling	A	0.68/0.82	0.72/0.88	0.82/1.01	1.28-1.34/1.36	1.55-1.63/1.84
		Heating	A	0.68/0.82	0.72/0.88	0.82/1.01	1.28-1.34/1.36	1.55-1.63/1.84
External finish				Galvanizing				
Dimension		Height	mm	295			335	
		Width	mm	1160			1510	
		Depth	mm	735			775	
Net weight			kg	39			52	
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)				
Fan	Type			Sirocco fan× 2				
	Airflow rate (Lo-Mid2-Mid1-Hi)		m^3/min	12.5-14.0-16.0-18.0	13.5-15.5-17.5-19.5	14.5-16.5-18.5-21.0	19.5-28.0 (Lo-Hi)	24.0-34.0 (Lo-Hi)
	External static pressure ※3		Pa	30/50/100			50/100/130	
Motor	Type			Single phase induction motor				
	Output ※4		kW	0.078(at 240V)			0.140(at 240V)	0.190(at 240V)
Air filter ※5				Synthethic fiber unwoven cloth filter(long life)				
Refrigerant pipe dimension		Gas (Flare)	mm	ø 15.88			ø 19.05	
		Liquid (Flare)	mm	ø 9.52				
Drain pipe dimension				Outer diameter 32(VP-25)				
Noise level (Lo-Mid2-Mid1-Hi)			dB(A)	30-34-36-39	32-35-37-40	34-37-40-42	34-42(37-44)※6	40-45(42-46)※6

Note: ※1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19˚CWB,Outdoor 35˚CDB
Heating : Indoor 20˚CDB,Outdoor 7˚CDB/6˚CWB

※2 Cooling capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19.5˚CWB,Outdoor 35˚CDB (WR2: water 30˚C)

※3 The external static pressure is set to 50Pa at factory shipment.

※4 The value for Models 20-80 are that at the external static pressure of 100Pa, while the value for Models 100-125 are that at the external static pressure of 130Pa.

※5 Be sure to apply the air filter near the air inlet grille, and make the air inlet ductwork length 850mm or more.

※6 The figure in ( ) indicates noise level at 240V/50Hz.

2. Capacity tables

2-1.Cooling Capacity (In combination with PUMY-125YM(A))

PDFY-P-VM-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.							
		23˚CDB 16˚CWB		25˚CDB 18˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20 (2.2)	20.0	2.2	1.8	2.3	1.9	2.4	1.9	2.6	1.9
	22.5	2.1	1.8	2.3	1.9	2.4	1.9	2.6	1.9
	25.0	2.1	1.8	2.3	1.9	2.4	1.8	2.5	1.9
	27.5	2.1	1.8	2.2	1.9	2.4	1.8	2.5	1.9
	30.0	2.1	1.7	2.2	1.8	2.3	1.8	2.5	1.9
	32.5	2.0	1.7	2.2	1.8	2.3	1.8	2.5	1.9
	35.0	2.0	1.7	2.1	1.8	2.3	1.8	2.4	1.9
	37.5	2.0	1.7	2.1	1.8	2.2	1.8	2.4	1.9
	40.0	2.0	1.7	2.1	1.8	2.2	1.8	2.4	1.8
	46.0	1.9	1.7	2.0	1.8	2.1	1.7	2.3	1.8
25 (2.8)	20.0	2.8	2.1	2.9	2.2	3.1	2.2	3.3	2.2
	22.5	2.7	2.1	2.9	2.2	3.1	2.1	3.2	2.2
	25.0	2.7	2.1	2.9	2.1	3.1	2.1	3.2	2.2
	27.5	2.7	2.0	2.8	2.1	3.0	2.1	3.2	2.2
	30.0	2.6	2.0	2.8	2.1	3.0	2.1	3.2	2.2
	32.5	2.6	2.0	2.8	2.1	2.9	2.1	3.1	2.2
	35.0	2.6	2.0	2.7	2.1	2.9	2.1	3.1	2.1
	37.5	2.5	2.0	2.7	2.1	2.9	2.0	3.0	2.1
	40.0	2.5	1.9	2.7	2.1	2.8	2.0	3.0	2.1
	46.0	2.4	1.9	2.6	2.0	2.7	2.0	2.9	2.1
32 (3.6)	20.0	3.6	2.5	3.7	2.6	4.0	2.6	4.2	2.7
	22.5	3.5	2.5	3.7	2.6	4.0	2.6	4.2	2.7
	25.0	3.5	2.5	3.7	2.6	3.9	2.6	4.1	2.7
	27.5	3.4	2.5	3.6	2.6	3.9	2.6	4.1	2.6
	30.0	3.4	2.4	3.6	2.6	3.8	2.5	4.1	2.6
	32.5	3.3	2.4	3.6	2.5	3.8	2.5	4.0	2.6
	35.0	3.3	2.4	3.5	2.5	3.7	2.5	4.0	2.6
	37.5	3.2	2.4	3.5	2.5	3.7	2.5	3.9	2.6
	40.0	3.2	2.4	3.4	2.5	3.6	2.5	3.9	2.5
	46.0	3.1	2.3	3.3	2.4	3.5	2.4	3.7	2.5
40 (4.5)	20.0	4.5	3.3	4.7	3.4	5.0	3.4	5.3	3.5
	22.5	4.4	3.3	4.6	3.4	5.0	3.4	5.2	3.5
	25.0	4.3	3.2	4.6	3.4	4.9	3.4	5.2	3.5
	27.5	4.3	3.2	4.6	3.4	4.9	3.3	5.1	3.4
	30.0	4.2	3.2	4.5	3.3	4.8	3.3	5.1	3.4
	32.5	4.2	3.1	4.4	3.3	4.7	3.3	5.0	3.4
	35.0	4.1	3.1	4.4	3.3	4.7	3.2	5.0	3.4
	37.5	4.1	3.1	4.3	3.2	4.6	3.2	4.9	3.3
	40.0	4.0	3.1	4.3	3.2	4.5	3.2	4.8	3.3
	46.0	3.8	3.0	4.1	3.2	4.3	3.1	4.6	3.2
50 (5.6)	20.0	5.5	4.1	5.8	4.2	6.2	4.2	6.6	4.3
	22.5	5.5	4.0	5.8	4.2	6.2	4.2	6.5	4.3
	25.0	5.4	4.0	5.7	4.2	6.1	4.1	6.4	4.3
	27.5	5.3	4.0	5.7	4.1	6.0	4.1	6.4	4.2
	30.0	5.3	3.9	5.6	4.1	5.9	4.1	6.3	4.2
	32.5	5.2	3.9	5.5	4.1	5.9	4.0	6.2	4.2
	35.0	5.1	3.8	5.5	4.0	5.8	4.0	6.2	4.1
	37.5	5.0	3.8	5.4	4.0	5.7	4.0	6.1	4.1
	40.0	5.0	3.8	5.3	4.0	5.6	3.9	6.0	4.1
	46.0	4.8	3.7	5.1	3.9	5.4	3.8	5.8	4.0
63 (7.1)	20.0	7.0	5.1	7.4	5.3	7.9	5.3	8.3	5.4
	22.5	6.9	5.0	7.3	5.3	7.8	5.2	8.2	5.4
	25.0	6.9	5.0	7.3	5.2	7.7	5.2	8.2	5.3
	27.5	6.8	5.0	7.2	5.2	7.7	5.2	8.1	5.3
	30.0	6.7	4.9	7.1	5.2	7.5	5.1	8.0	5.3
	32.5	6.6	4.9	7.0	5.1	7.5	5.1	7.9	5.2
	35.0	6.5	4.8	6.9	5.1	7.3	5.0	7.8	5.2
	37.5	6.4	4.8	6.8	5.0	7.2	5.0	7.7	5.2
	40.0	6.3	4.7	6.7	5.0	7.2	4.9	7.6	5.1
	46.0	6.1	4.6	6.5	4.9	6.9	4.8	7.3	5.0

Cooling Capacity (In combination with PUMY-125YM(A))

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

PDFY-P-VM-A

Unit size	Outdoor air temp.	Indoor air temp.							
		23˚CDB 16˚CWB		25˚CDB 18˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC
71 (8.0)	20.0	7.9	5.8	8.3	6.0	8.9	6.0	9.4	6.1
	22.5	7.8	5.7	8.2	5.9	8.8	5.9	9.3	6.1
	25.0	7.7	5.7	8.2	5.9	8.7	5.9	9.2	6.0
	27.5	7.6	5.6	8.1	5.9	8.6	5.8	9.1	6.0
	30.0	7.5	5.6	8.0	5.8	8.5	5.8	9.0	6.0
	32.5	7.4	5.5	7.9	5.8	8.4	5.7	8.9	5.9
	35.0	7.3	5.4	7.8	5.7	8.3	5.7	8.8	5.9
	37.5	7.2	5.4	7.7	5.7	8.2	5.6	8.7	5.8
	40.0	7.1	5.4	7.6	5.6	8.1	5.6	8.6	5.8
	46.0	6.8	5.2	7.3	5.5	7.7	5.4	8.2	5.6
80 (9.0)	20.0	8.9	6.3	9.4	6.6	10.0	6.5	10.6	6.7
	22.5	8.8	6.2	9.3	6.5	9.9	6.5	10.4	6.6
	25.0	8.7	6.2	9.2	6.5	9.8	6.4	10.4	6.6
	27.5	8.6	6.1	9.1	6.4	9.7	6.4	10.3	6.6
	30.0	8.5	6.1	9.0	6.4	9.5	6.3	10.2	6.5
	32.5	8.3	6.0	8.9	6.3	9.5	6.3	10.0	6.5
	35.0	8.2	5.9	8.8	6.3	9.3	6.2	9.9	6.4
	37.5	8.1	5.9	8.6	6.2	9.2	6.1	9.8	6.4
	40.0	8.0	5.8	8.6	6.1	9.1	6.1	9.6	6.3
	46.0	7.7	5.7	8.2	6.0	8.7	5.9	9.3	6.1
100 (11.2)	20.0	11.1	7.9	11.6	8.2	12.5	8.2	13.1	8.4
	22.5	10.9	7.8	11.5	8.2	12.3	8.1	13.0	8.3
	25.0	10.8	7.8	11.5	8.1	12.2	8.1	12.9	8.3
	27.5	10.7	7.7	11.3	8.1	12.1	8.0	12.8	8.2
	30.0	10.5	7.6	11.2	8.0	11.9	7.9	12.6	8.2
	32.5	10.4	7.5	11.1	7.9	11.8	7.9	12.5	8.1
	35.0	10.2	7.5	10.9	7.9	11.6	7.8	12.3	8.0
	37.5	10.1	7.4	10.8	7.8	11.4	7.7	12.2	8.0
	40.0	10.0	7.3	10.6	7.7	11.3	7.7	12.0	7.9
	46.0	9.6	7.1	10.2	7.5	10.8	7.4	11.5	7.7
125 (14.0)	20.0	13.9	10.0	14.6	10.4	15.6	10.4	16.4	10.7
	22.5	13.7	9.9	14.4	10.4	15.4	10.3	16.2	10.6
	25.0	13.5	9.8	14.3	10.3	15.3	10.2	16.1	10.5
	27.5	13.4	9.8	14.2	10.2	15.1	10.2	16.0	10.5
	30.0	13.2	9.7	14.0	10.1	14.9	10.0	15.8	10.4
	32.5	13.0	9.6	13.8	10.1	14.7	10.0	15.6	10.3
	35.0	12.8	9.5	13.7	10.0	14.5	9.9	15.4	10.2
	37.5	12.6	9.4	13.4	9.9	14.3	9.8	15.2	10.1
	40.0	12.5	9.3	13.3	9.8	14.1	9.7	15.0	10.0
	46.0	12.0	9.1	12.8	9.6	13.5	9.4	14.4	9.8

2-2.Heating Capacity (In combination with PUMY-125YM(A))

PDFY-P-VM-A

SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB		
		15.0	20.0	25.0
	˚CWB	SHC	SHC	SHC
20	-12.0	1.6	1.6	1.5
	-10.0	1.7	1.6	1.6
	-5.0	1.9	1.9	1.9
	0.0	2.2	2.1	2.1
	2.5	2.3	2.3	2.3
	6.0	2.5	2.5	2.5
	7.5	2.6	2.6	2.5
	10.0	2.8	2.7	2.5
	12.5	2.9	2.8	2.5
	15.5	3.1	2.8	2.5
25	-12.0	2.0	2.0	2.0
	-10.0	2.1	2.1	2.1
	-5.0	2.4	2.4	2.4
	0.0	2.8	2.8	2.7
	2.5	3.0	2.9	2.9
	6.0	3.2	3.2	3.2
	7.5	3.3	3.3	3.2
	10.0	3.5	3.5	3.2
	12.5	3.7	3.5	3.2
	15.5	3.9	3.5	3.2
32	-12.0	2.5	2.5	2.5
	-10.0	2.7	2.6	2.6
	-5.0	3.1	3.0	3.0
	0.0	3.5	3.4	3.4
	2.5	3.7	3.7	3.6
	6.0	4.0	4.0	3.9
	7.5	4.2	4.1	4.0
	10.0	4.4	4.4	4.0
	12.5	4.7	4.4	4.0
	15.5	4.9	4.4	4.0
40	-12.0	3.2	3.1	3.1
	-10.0	3.4	3.3	3.2
	-5.0	3.8	3.8	3.7
	0.0	4.3	4.3	4.2
	2.5	4.6	4.6	4.5
	6.0	5.0	5.0	4.9
	7.5	5.2	5.2	5.0
	10.0	5.5	5.5	5.0
	12.5	5.9	5.5	5.0
	15.5	6.2	5.5	5.0
50	-12.0	4.0	3.9	3.9
	-10.0	4.2	4.2	4.1
	-5.0	4.8	4.8	4.7
	0.0	5.5	5.4	5.3
	2.5	5.8	5.8	5.7
	6.0	6.3	6.3	6.2
	7.5	6.6	6.5	6.2
	10.0	7.0	6.9	6.2
	12.5	7.4	7.0	6.2
	15.5	7.7	7.0	6.2

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB		
		15.0	20.0	25.0
	˚CWB	SHC	SHC	SHC
63	-12.0	5.1	5.0	4.9
	-10.0	5.4	5.3	5.2
	-5.0	6.1	6.0	5.9
	0.0	6.9	6.9	6.8
	2.5	7.4	7.3	7.2
	6.0	8.0	8.0	7.9
	7.5	8.3	8.3	7.9
	10.0	8.8	8.8	7.9
	12.5	9.4	8.8	7.9
	15.5	9.8	8.8	7.9
71	-12.0	5.7	5.6	5.5
	-10.0	6.0	5.9	5.8
	-5.0	6.9	6.8	6.7
	0.0	7.8	7.7	7.6
	2.5	8.3	8.2	8.1
	6.0	9.1	9.0	8.9
	7.5	9.4	9.3	8.9
	10.0	9.9	9.9	8.9
	12.5	10.5	9.9	8.9
	15.5	11.1	9.9	8.9
80	-12.0	6.4	6.2	6.1
	-10.0	6.7	6.6	6.5
	-5.0	7.6	7.5	7.4
	0.0	8.7	8.6	8.5
	2.5	9.2	9.2	9.0
	6.0	10.1	10.0	9.9
	7.5	10.4	10.4	9.9
	10.0	11.1	11.0	9.9
	12.5	11.7	11.0	9.9
	15.5	12.3	11.0	9.9
100	-12.0	8.0	7.8	7.7
	-10.0	8.4	8.2	8.1
	-5.0	9.6	9.4	9.3
	0.0	10.9	10.7	10.6
	2.5	11.5	11.4	11.3
	6.0	12.6	12.5	12.3
	7.5	13.0	12.9	12.4
	10.0	13.8	13.7	12.4
	12.5	14.6	13.8	12.4
	15.5	15.4	13.8	12.4
125	-12.0	10.2	10.0	9.8
	-10.0	10.7	10.6	10.4
	-5.0	12.2	12.1	11.9
	0.0	13.9	13.8	13.6
	2.5	14.8	14.7	14.5
	6.0	16.1	16.0	15.8
	7.5	16.7	16.6	15.8
	10.0	17.7	17.6	15.8
	12.5	18.7	17.7	15.8
	15.5	19.7	17.7	15.8

2-3.Cooling Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PDFY-P-VM-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	20.0	2.2	1.8	2.2	1.8	2.3	1.8	2.3	1.8	2.4	1.9	2.5	1.9	2.6	1.8
(2.2)	22.5	2.1	1.8	2.2	1.8	2.3	1.8	2.3	1.8	2.4	1.9	2.4	1.8	2.5	1.8
	25.0	2.1	1.8	2.2	1.8	2.2	1.8	2.3	1.8	2.3	1.9	2.4	1.8	2.5	1.8
	27.5	2.1	1.8	2.1	1.8	2.2	1.8	2.3	1.8	2.3	1.9	2.4	1.8	2.5	1.8
	30.0	2.1	1.7	2.1	1.8	2.2	1.8	2.2	1.8	2.3	1.9	2.4	1.8	2.5	1.8
	32.5	2.0	1.7	2.1	1.8	2.2	1.8	2.2	1.8	2.3	1.9	2.4	1.8	2.4	1.8
	35.0	2.0	1.7	2.1	1.8	2.2	1.7	2.2	1.8	2.2	1.8	2.3	1.8	2.4	1.8
	37.5	2.0	1.7	2.0	1.8	2.1	1.7	2.2	1.8	2.2	1.8	2.3	1.8	2.4	1.8
	40.0	2.0	1.7	2.0	1.8	2.1	1.7	2.2	1.8	2.2	1.8	2.3	1.8	2.4	1.8
	43.0	2.0	1.7	2.0	1.8	2.1	1.7	2.1	1.8	2.2	1.8	2.3	1.8	2.3	1.7
25	20.0	2.7	2.1	2.8	2.1	2.9	2.1	3.0	2.1	3.0	2.2	3.1	2.1	3.2	2.0
(2.8)	22.5	2.7	2.1	2.8	2.1	2.9	2.1	2.9	2.1	3.0	2.1	3.1	2.1	3.2	2.0
	25.0	2.7	2.0	2.7	2.1	2.9	2.0	2.9	2.1	3.0	2.1	3.1	2.1	3.2	2.0
	27.5	2.7	2.0	2.7	2.1	2.8	2.0	2.9	2.1	2.9	2.1	3.1	2.1	3.2	2.0
	30.0	2.6	2.0	2.7	2.1	2.8	2.0	2.9	2.0	2.9	2.1	3.0	2.1	3.1	2.0
	32.5	2.6	2.0	2.7	2.1	2.8	2.0	2.8	2.0	2.9	2.1	3.0	2.0	3.1	2.0
	35.0	2.6	2.0	2.6	2.0	2.7	2.0	2.8	2.0	2.9	2.1	3.0	2.0	3.1	2.0
	37.5	2.5	2.0	2.6	2.0	2.7	2.0	2.8	2.0	2.8	2.1	2.9	2.0	3.1	2.0
	40.0	2.5	2.0	2.6	2.0	2.7	2.0	2.7	2.0	2.8	2.1	2.9	2.0	3.0	2.0
	43.0	2.5	1.9	2.5	2.0	2.7	2.0	2.7	2.0	2.8	2.1	2.9	2.0	3.0	2.0
32	20.0	3.5	2.5	3.6	2.6	3.7	2.5	3.8	2.5	3.9	2.6	4.0	2.5	4.2	2.4
(3.6)	22.5	3.5	2.5	3.6	2.5	3.7	2.5	3.8	2.5	3.9	2.6	4.0	2.5	4.1	2.4
	25.0	3.5	2.5	3.5	2.5	3.7	2.5	3.7	2.5	3.8	2.6	4.0	2.5	4.1	2.4
	27.5	3.4	2.5	3.5	2.5	3.6	2.5	3.7	2.5	3.8	2.5	3.9	2.5	4.1	2.4
	30.0	3.4	2.4	3.5	2.5	3.6	2.4	3.7	2.5	3.7	2.5	3.9	2.5	4.0	2.4
	32.5	3.3	2.4	3.4	2.5	3.6	2.4	3.6	2.4	3.7	2.5	3.9	2.4	4.0	2.4
	35.0	3.3	2.4	3.4	2.5	3.5	2.4	3.6	2.4	3.7	2.5	3.8	2.4	4.0	2.4
	37.5	3.3	2.4	3.3	2.4	3.5	2.4	3.6	2.4	3.6	2.5	3.8	2.4	3.9	2.4
	40.0	3.2	2.4	3.3	2.4	3.5	2.4	3.5	2.4	3.6	2.5	3.7	2.4	3.9	2.3
	43.0	3.2	2.4	3.3	2.4	3.4	2.4	3.5	2.4	3.6	2.4	3.7	2.4	3.8	2.3
40	20.0	4.4	3.3	4.5	3.3	4.7	3.3	4.8	3.3	4.9	3.4	5.0	3.3	5.2	3.2
(4.5)	22.5	4.4	3.2	4.5	3.3	4.6	3.2	4.7	3.3	4.8	3.4	5.0	3.3	5.2	3.2
	25.0	4.3	3.2	4.4	3.3	4.6	3.2	4.7	3.2	4.8	3.3	5.0	3.3	5.1	3.2
	27.5	4.3	3.2	4.4	3.3	4.5	3.2	4.6	3.2	4.7	3.3	4.9	3.2	5.1	3.2
	30.0	4.2	3.2	4.3	3.2	4.5	3.2	4.6	3.2	4.7	3.3	4.9	3.2	5.0	3.1
	32.5	4.2	3.2	4.3	3.2	4.5	3.2	4.5	3.2	4.6	3.3	4.8	3.2	5.0	3.1
	35.0	4.1	3.1	4.2	3.2	4.4	3.1	4.5	3.2	4.6	3.3	4.8	3.2	5.0	3.1
	37.5	4.1	3.1	4.2	3.2	4.4	3.1	4.5	3.2	4.5	3.3	4.7	3.2	4.9	3.1
	40.0	4.1	3.1	4.1	3.2	4.3	3.1	4.4	3.1	4.5	3.2	4.7	3.2	4.9	3.1
	43.0	4.0	3.1	4.1	3.1	4.3	3.1	4.4	3.1	4.4	3.2	4.6	3.1	4.8	3.1
50	20.0	5.5	4.0	5.6	4.1	5.8	4.0	5.9	4.0	6.0	4.2	6.3	4.1	6.5	3.9
(5.6)	22.5	5.4	4.0	5.5	4.1	5.8	4.0	5.9	4.0	6.0	4.1	6.2	4.0	6.4	3.9
	25.0	5.4	4.0	5.5	4.1	5.7	4.0	5.8	4.0	5.9	4.1	6.2	4.0	6.4	3.9
	27.5	5.3	3.9	5.4	4.0	5.7	3.9	5.8	4.0	5.9	4.1	6.1	4.0	6.3	3.9
	30.0	5.3	3.9	5.4	4.0	5.6	3.9	5.7	4.0	5.8	4.1	6.0	4.0	6.3	3.9
	32.5	5.2	3.9	5.3	4.0	5.5	3.9	5.7	3.9	5.8	4.1	6.0	4.0	6.2	3.8
	35.0	5.2	3.9	5.3	4.0	5.5	3.9	5.6	3.9	5.7	4.0	5.9	3.9	6.2	3.8
	37.5	5.1	3.8	5.2	3.9	5.4	3.8	5.5	3.9	5.7	4.0	5.9	3.9	6.1	3.8
	40.0	5.0	3.8	5.2	3.9	5.4	3.8	5.5	3.9	5.6	4.0	5.8	3.9	6.0	3.8
	43.0	5.0	3.8	5.1	3.9	5.3	3.8	5.4	3.8	5.5	4.0	5.8	3.9	6.0	3.8
63	20.0	7.0	5.1	7.1	5.2	7.4	5.0	7.5	5.1	7.7	5.2	8.0	5.1	8.2	4.9
(7.1)	22.5	6.9	5.0	7.0	5.1	7.3	5.0	7.5	5.0	7.6	5.2	7.9	5.1	8.2	4.9
	25.0	6.8	5.0	7.0	5.1	7.2	5.0	7.4	5.0	7.5	5.2	7.8	5.0	8.1	4.9
	27.5	6.7	4.9	6.9	5.1	7.2	4.9	7.3	5.0	7.5	5.1	7.7	5.0	8.0	4.9
	30.0	6.7	4.9	6.8	5.0	7.1	4.9	7.2	4.9	7.4	5.1	7.7	5.0	8.0	4.8
	32.5	6.6	4.9	6.7	5.0	7.0	4.9	7.2	4.9	7.3	5.1	7.6	4.9	7.9	4.8
	35.0	6.5	4.8	6.7	4.9	7.0	4.8	7.1	4.9	7.2	5.0	7.5	4.9	7.8	4.8
	37.5	6.5	4.8	6.6	4.9	6.9	4.8	7.0	4.9	7.2	5.0	7.5	4.9	7.7	4.8
	40.0	6.4	4.8	6.5	4.9	6.8	4.8	7.0	4.8	7.1	5.0	7.4	4.9	7.7	4.7
	43.0	6.3	4.7	6.4	4.8	6.7	4.7	6.9	4.8	7.0	4.9	7.3	4.8	7.6	4.7

Cooling Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PDFY-P-VM-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
71	20.0	7.8	5.7	8.0	5.8	8.3	5.7	8.5	5.7	8.6	5.9	9.0	5.7	9.3	5.6
(8.0)	22.5	7.8	5.7	7.9	5.8	8.2	5.7	8.4	5.7	8.6	5.9	8.9	5.7	9.2	5.5
	25.0	7.7	5.6	7.8	5.8	8.2	5.6	8.3	5.7	8.5	5.8	8.8	5.7	9.1	5.5
	27.5	7.6	5.6	7.8	5.7	8.1	5.6	8.2	5.6	8.4	5.8	8.7	5.7	9.0	5.5
	30.0	7.5	5.6	7.7	5.7	8.0	5.5	8.2	5.6	8.3	5.8	8.6	5.6	9.0	5.5
	32.5	7.4	5.5	7.6	5.6	7.9	5.5	8.1	5.6	8.2	5.7	8.6	5.6	8.9	5.4
	35.0	7.4	5.5	7.5	5.6	7.8	5.5	8.0	5.5	8.2	5.7	8.5	5.6	8.8	5.4
	37.5	7.3	5.4	7.4	5.6	7.8	5.4	7.9	5.5	8.1	5.7	8.4	5.5	8.7	5.4
	40.0	7.2	5.4	7.4	5.5	7.7	5.4	7.8	5.5	8.0	5.6	8.3	5.5	8.6	5.4
	43.0	7.1	5.3	7.3	5.5	7.6	5.4	7.7	5.4	7.9	5.6	8.2	5.5	8.5	5.3
80	20.0	8.8	6.3	9.0	6.4	9.4	6.2	9.5	6.2	9.7	6.4	10.1	6.2	10.4	6.1
(9.0)	22.5	8.7	6.2	8.9	6.3	9.3	6.2	9.5	6.2	9.6	6.4	10.0	6.2	10.4	6.0
	25.0	8.6	6.2	8.8	6.3	9.2	6.1	9.4	6.2	9.5	6.3	9.9	6.2	10.3	6.0
	27.5	8.6	6.1	8.7	6.2	9.1	6.1	9.3	6.1	9.5	6.3	9.8	6.1	10.2	6.0
	30.0	8.5	6.1	8.6	6.2	9.0	6.1	9.2	6.1	9.4	6.3	9.7	6.1	10.1	5.9
	32.5	8.4	6.0	8.6	6.1	8.9	6.0	9.1	6.0	9.3	6.2	9.6	6.1	10.0	5.9
	35.0	8.3	6.0	8.5	6.1	8.8	6.0	9.0	6.0	9.2	6.2	9.5	6.0	9.9	5.9
	37.5	8.2	5.9	8.4	6.1	8.7	5.9	8.9	6.0	9.1	6.2	9.5	6.0	9.8	5.8
	40.0	8.1	5.9	8.3	6.0	8.6	5.9	8.8	5.9	9.0	6.1	9.4	6.0	9.7	5.8
	43.0	8.0	5.8	8.2	6.0	8.5	5.8	8.7	5.9	8.9	6.1	9.3	5.9	9.6	5.8
100	20.0	11.0	7.9	11.2	8.0	11.6	7.8	11.9	7.8	12.1	8.1	12.5	7.9	13.0	7.6
(11.2)	22.5	10.9	7.8	11.1	8.0	11.5	7.8	11.8	7.8	12.0	8.0	12.4	7.8	12.9	7.6
	25.0	10.8	7.7	11.0	7.9	11.4	7.7	11.6	7.8	11.9	8.0	12.3	7.8	12.8	7.5
	27.5	10.6	7.7	10.9	7.8	11.3	7.7	11.5	7.7	11.8	7.9	12.2	7.7	12.7	7.5
	30.0	10.5	7.6	10.8	7.8	11.2	7.6	11.4	7.7	11.6	7.9	12.1	7.7	12.5	7.5
	32.5	10.4	7.6	10.6	7.7	11.1	7.6	11.3	7.6	11.5	7.8	12.0	7.6	12.4	7.4
	35.0	10.3	7.5	10.5	7.7	11.0	7.5	11.2	7.6	11.4	7.8	11.9	7.6	12.3	7.4
	37.5	10.2	7.5	10.4	7.6	10.9	7.5	11.1	7.5	11.3	7.7	11.8	7.5	12.2	7.3
	40.0	10.1	7.4	10.3	7.6	10.8	7.4	11.0	7.5	11.2	7.7	11.6	7.5	12.1	7.3
	43.0	9.9	7.3	10.2	7.5	10.6	7.3	10.8	7.4	11.1	7.6	11.5	7.5	12.0	7.3
125	20.0	13.7	9.9	14.0	10.1	14.6	9.9	14.8	10.0	15.1	10.3	15.7	10.0	16.2	9.7
(14.0)	22.5	13.6	9.9	13.9	10.1	14.4	9.8	14.7	9.9	15.0	10.2	15.5	9.9	16.1	9.6
	25.0	13.4	9.8	13.7	10.0	14.3	9.8	14.6	9.8	14.8	10.1	15.4	9.9	16.0	9.6
	27.5	13.3	9.7	13.6	9.9	14.1	9.7	14.4	9.8	14.7	10.1	15.3	9.8	15.8	9.5
	30.0	13.2	9.7	13.4	9.9	14.0	9.7	14.3	9.7	14.6	10.0	15.1	9.8	15.7	9.5
	32.5	13.0	9.6	13.3	9.8	13.9	9.6	14.1	9.7	14.4	10.0	15.0	9.7	15.5	9.4
	35.0	12.9	9.5	13.2	9.7	13.7	9.5	14.0	9.6	14.3	9.9	14.8	9.7	15.4	9.4
	37.5	12.7	9.5	13.0	9.7	13.6	9.5	13.9	9.5	14.1	9.9	14.7	9.6	15.3	9.4
	40.0	12.6	9.4	12.9	9.6	13.4	9.4	13.7	9.5	14.0	9.8	14.6	9.6	15.1	9.3
	43.0	12.4	9.3	12.7	9.5	13.3	9.3	13.6	9.4	13.8	9.7	14.4	9.5	15.0	9.2

2-4.Heating Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PDFY-P-VM-A

SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15.0	20.0	25.0	27.0
	˚CWB	SHC	SHC	SHC	SHC
20	-15.0	1.7	1.6	1.6	1.6
	-10.0	1.9	1.9	1.9	1.7
	-5.0	2.1	2.1	2.0	1.7
	0.0	2.4	2.4	2.0	1.7
	2.5	2.5	2.5	2.0	1.7
	6.0	2.5	2.5	2.0	1.7
	7.5	2.6	2.5	2.0	1.7
	10.0	2.8	2.5	2.0	1.7
	12.5	3.0	2.5	2.0	1.7
	15.5	3.0	2.5	2.0	1.7
25	-15.0	2.1	2.1	2.1	2.1
	-10.0	2.4	2.4	2.4	2.2
	-5.0	2.7	2.7	2.5	2.2
	0.0	3.1	3.0	2.5	2.2
	2.5	3.2	3.2	2.5	2.2
	6.0	3.2	3.2	2.5	2.2
	7.5	3.4	3.2	2.5	2.2
	10.0	3.6	3.2	2.5	2.2
	12.5	3.8	3.2	2.5	2.2
	15.5	3.9	3.2	2.5	2.2
32	-15.0	2.7	2.6	2.6	2.6
	-10.0	3.1	3.0	3.0	2.8
	-5.0	3.4	3.4	3.1	2.8
	0.0	3.8	3.8	3.1	2.8
	2.5	4.0	4.0	3.1	2.8
	6.0	4.0	4.0	3.1	2.8
	7.5	4.2	4.0	3.1	2.8
	10.0	4.5	4.0	3.1	2.8
	12.5	4.8	4.0	3.1	2.8
	15.5	4.8	4.0	3.1	2.8
40	-15.0	3.3	3.3	3.3	3.3
	-10.0	3.8	3.8	3.7	3.5
	-5.0	4.3	4.2	3.9	3.5
	0.0	4.8	4.7	3.9	3.5
	2.5	5.0	5.0	3.9	3.5
	6.0	5.1	5.0	3.9	3.5
	7.5	5.3	5.0	3.9	3.5
	10.0	5.6	5.0	3.9	3.5
	12.5	6.0	5.0	3.9	3.5
	15.5	6.1	5.0	3.9	3.5
50	-15.0	4.2	4.2	4.1	4.1
	-10.0	4.8	4.8	4.7	4.3
	-5.0	5.4	5.3	4.9	4.3
	0.0	6.0	5.9	4.9	4.3
	2.5	6.3	6.2	4.9	4.3
	6.0	6.4	6.3	4.9	4.3
	7.5	6.6	6.3	4.9	4.3
	10.0	7.1	6.3	4.9	4.3
	12.5	7.5	6.3	4.9	4.3
	15.5	7.6	6.3	4.9	4.3

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15.0	20.0	25.0	27.0
	˚CWB	SHC	SHC	SHC	SHC
63	-15.0	5.4	5.3	5.2	5.2
	-10.0	6.1	6.0	6.0	5.5
	-5.0	6.9	6.8	6.2	5.5
	0.0	7.6	7.5	6.2	5.5
	2.5	8.0	7.9	6.2	5.5
	6.0	8.1	8.0	6.2	5.5
	7.5	8.4	8.0	6.2	5.5
	10.0	9.0	8.0	6.2	5.5
	12.5	9.6	8.0	6.2	5.5
	15.5	9.7	8.0	6.2	5.5
71	-15.0	6.0	5.9	5.9	5.9
	-10.0	6.9	6.8	6.7	6.2
	-5.0	7.7	7.6	7.0	6.2
	0.0	8.6	8.5	7.0	6.2
	2.5	9.0	8.9	7.0	6.2
	6.0	9.1	9.0	7.0	6.2
	7.5	9.5	9.0	7.0	6.2
	10.0	10.1	9.0	7.0	6.2
	12.5	10.8	9.0	7.0	6.2
	15.5	10.9	9.0	7.0	6.2
80	-15.0	6.7	6.6	6.5	6.5
	-10.0	7.6	7.5	7.4	6.9
	-5.0	8.6	8.5	7.8	6.9
	0.0	9.5	9.4	7.8	6.9
	2.5	10.0	9.9	7.8	6.9
	6.0	10.1	10.0	7.8	6.9
	7.5	10.5	10.0	7.8	6.9
	10.0	11.2	10.0	7.8	6.9
	12.5	12.0	10.0	7.8	6.9
	15.5	12.1	10.0	7.8	6.9
100	-15.0	8.4	8.2	8.2	8.1
	-10.0	9.6	9.4	9.3	8.6
	-5.0	10.7	10.6	9.8	8.6
	0.0	11.9	11.8	9.8	8.6
	2.5	12.5	12.4	9.8	8.6
	6.0	12.6	12.5	9.8	8.6
	7.5	13.2	12.5	9.8	8.6
	10.0	14.1	12.5	9.8	8.6
	12.5	15.0	12.5	9.8	8.6
	15.5	15.1	12.5	9.8	8.6
125	-15.0	10.7	10.6	10.5	10.4
	-10.0	12.2	12.1	11.9	11.0
	-5.0	13.7	13.6	12.5	11.0
	0.0	15.3	15.1	12.5	11.0
	2.5	16.0	15.8	12.5	11.0
	6.0	16.2	16.0	12.5	11.0
	7.5	16.8	16.0	12.5	11.0
	10.0	18.0	16.0	12.5	11.0
	12.5	19.1	16.0	12.5	11.0
	15.5	19.4	16.0	12.5	11.0

2-5.Cooling capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PDFY-P-VM-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	20.0	1813	1520	1901	1588	2049	1585	2157	1637	2192	1691	2320	1668	2459	1644
	22.5	1813	1520	1894	1584	2031	1578	2131	1626	2164	1681	2290	1657	2424	1633
	25.0	1799	1513	1876	1576	2008	1568	2105	1616	2137	1670	2259	1646	2389	1621
	27.5	1784	1507	1857	1568	1985	1559	2079	1606	2110	1660	2229	1635	2354	1610
	30.0	1770	1500	1839	1560	1962	1549	2052	1595	2083	1649	2198	1625	2319	1598
	32.5	1755	1494	1821	1552	1939	1540	2026	1585	2055	1638	2167	1614	2285	1587
	35.0	1741	1487	1802	1544	1916	1530	2000	1575	2028	1628	2137	1603	2250	1575
	37.5	1726	1480	1784	1536	1893	1521	1974	1564	2001	1618	2106	1592	2215	1564
	40.0	1712	1474	1766	1527	1870	1511	1948	1554	1974	1607	2076	1581	2180	1553
	43.0	1695	1466	1744	1518	1843	1500	1916	1542	1941	1595	2039	1568	2139	1539
25	20.0	2266	1734	2377	1807	2561	1806	2697	1858	2740	1912	2900	1885	3073	1856
	22.5	2266	1734	2367	1802	2539	1796	2664	1844	2705	1898	2862	1870	3030	1841
	25.0	2248	1726	2345	1791	2510	1784	2631	1830	2671	1884	2824	1856	2986	1825
	27.5	2230	1717	2322	1781	2482	1771	2598	1816	2637	1870	2786	1841	2943	1810
	30.0	2212	1708	2299	1770	2453	1758	2566	1803	2603	1856	2748	1827	2899	1795
	32.5	2194	1700	2276	1759	2424	1746	2533	1789	2569	1842	2709	1812	2856	1780
	35.0	2176	1691	2253	1748	2395	1733	2500	1776	2535	1828	2671	1798	2812	1765
	37.5	2158	1682	2230	1738	2367	1721	2467	1762	2501	1814	2633	1784	2769	1750
	40.0	2140	1674	2207	1727	2338	1708	2434	1749	2467	1801	2595	1769	2725	1735
	43.0	2118	1663	2180	1714	2304	1693	2395	1732	2426	1784	2549	1752	2673	1717
32	20.0	2855	2075	2995	2158	3227	2160	3398	2216	3452	2275	3654	2242	3872	2206
	22.5	2855	2075	2983	2152	3199	2147	3357	2198	3409	2256	3606	2222	3817	2185
	25.0	2833	2064	2954	2138	3163	2130	3315	2179	3366	2237	3558	2203	3763	2165
	27.5	2810	2053	2925	2124	3127	2113	3274	2161	3323	2219	3510	2183	3708	2145
	30.0	2787	2041	2896	2109	3091	2096	3233	2143	3280	2200	3462	2164	3653	2125
	32.5	2765	2030	2868	2095	3055	2080	3191	2125	3237	2182	3414	2145	3598	2104
	35.0	2742	2018	2839	2081	3018	2063	3150	2107	3194	2164	3366	2126	3544	2085
	37.5	2719	2007	2810	2067	2982	2047	3109	2089	3151	2145	3318	2107	3489	2065
	40.0	2696	1995	2781	2053	2946	2030	3067	2072	3109	2127	3270	2088	3434	2045
	43.0	2669	1982	2746	2036	2902	2011	3018	2050	3057	2105	3212	2066	3368	2021
40	20.0	3625	2724	3803	2835	4098	2836	4315	2914	4383	2996	4640	2954	4917	2908
	22.5	3625	2724	3788	2828	4063	2820	4262	2892	4329	2974	4579	2930	4848	2883
	25.0	3597	2710	3751	2810	4017	2799	4210	2869	4274	2951	4518	2906	4778	2858
	27.5	3568	2696	3715	2793	3971	2778	4157	2847	4220	2928	4457	2883	4708	2833
	30.0	3539	2681	3678	2775	3925	2758	4105	2825	4165	2905	4396	2859	4639	2808
	32.5	3511	2667	3641	2758	3879	2737	4052	2803	4111	2883	4335	2835	4569	2784
	35.0	3482	2653	3605	2741	3833	2717	4000	2781	4056	2860	4274	2812	4500	2759
	37.5	3453	2639	3568	2723	3787	2697	3948	2759	4002	2838	4213	2789	4430	2735
	40.0	3424	2625	3531	2706	3741	2677	3895	2737	3947	2815	4152	2766	4361	2711
	43.0	3389	2608	3487	2685	3686	2652	3832	2711	3882	2789	4078	2738	4277	2682
50	20.0	4532	3371	4753	3508	5123	3509	5393	3605	5479	3705	5800	3651	6146	3594
	22.5	4532	3371	4735	3499	5078	3489	5328	3576	5411	3676	5724	3621	6059	3562
	25.0	4496	3353	4689	3477	5021	3463	5262	3548	5343	3647	5648	3591	5972	3531
	27.5	4460	3336	4643	3455	4963	3437	5197	3520	5275	3618	5571	3561	5886	3499
	30.0	4424	3318	4597	3433	4906	3411	5131	3492	5207	3590	5495	3532	5799	3468
	32.5	4388	3300	4552	3411	4848	3385	5066	3464	5139	3561	5419	3502	5712	3437
	35.0	4352	3282	4506	3389	4791	3359	5000	3436	5070	3533	5342	3472	5625	3406
	37.5	4316	3264	4460	3367	4734	3334	4934	3408	5002	3504	5266	3443	5538	3375
	40.0	4280	3247	4414	3345	4676	3308	4869	3381	4934	3476	5190	3414	5451	3345
	43.0	4237	3226	4359	3319	4607	3278	4790	3348	4852	3443	5098	3379	5347	3308
63	20.0	5710	4209	5989	4378	6455	4381	6796	4498	6904	4621	7309	4554	7744	4482
	22.5	5710	4209	5966	4367	6399	4355	6713	4462	6818	4584	7212	4515	7635	4442
	25.0	5665	4187	5908	4339	6326	4322	6630	4426	6732	4547	7116	4477	7525	4402
	27.5	5620	4164	5851	4311	6254	4289	6548	4390	6646	4510	7020	4439	7416	4362
	30.0	5574	4141	5793	4283	6181	4256	6465	4354	6560	4474	6924	4401	7306	4322
	32.5	5529	4119	5735	4255	6109	4223	6383	4319	6475	4438	6828	4364	7197	4282
	35.0	5484	4096	5677	4227	6037	4190	6300	4284	6389	4402	6731	4326	7087	4243
	37.5	5438	4073	5620	4199	5964	4158	6217	4248	6303	4366	6635	4289	6978	4204
	40.0	5393	4051	5562	4171	5892	4125	6135	4213	6217	4330	6539	4252	6868	4165
	43.0	5338	4024	5493	4138	5805	4087	6036	4171	6114	4287	6424	4207	6737	4118

Cooling capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PDFY-P-VM-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
71	20.0	6435	4757	6750	4949	7274	4951	7659	5084	7780	5224	8237	5148	8728	5067
	22.5	6435	4757	6724	4936	7211	4922	7566	5044	7684	5183	8128	5105	8604	5022
	25.0	6385	4732	6659	4904	7130	4885	7472	5003	7587	5141	8020	5062	8481	4977
	27.5	6334	4706	6593	4873	7048	4848	7379	4963	7490	5100	7911	5020	8358	4932
	30.0	6282	4681	6528	4841	6966	4811	7286	4923	7393	5059	7803	4977	8234	4887
	32.5	6231	4655	6463	4810	6885	4774	7193	4883	7297	5019	7695	4935	8111	4843
	35.0	6180	4630	6398	4779	6803	4737	7100	4843	7200	4978	7586	4893	7987	4799
	37.5	6129	4605	6333	4747	6722	4701	7007	4804	7103	4938	7478	4851	7864	4755
	40.0	6078	4579	6268	4716	6640	4664	6914	4764	7006	4897	7369	4809	7740	4711
	43.0	6016	4549	6190	4679	6542	4621	6802	4717	6890	4849	7239	4759	7592	4659
80	20.0	7251	5210	7605	5415	8196	5421	8629	5559	8767	5702	9281	5619	9834	5529
	22.5	7251	5210	7576	5400	8125	5388	8525	5512	8658	5654	9159	5569	9695	5476
	25.0	7194	5181	7503	5363	8033	5344	8420	5465	8549	5606	9036	5519	9556	5424
	27.5	7136	5151	7429	5326	7941	5301	8315	5418	8440	5558	8914	5469	9417	5371
	30.0	7079	5122	7356	5290	7849	5258	8210	5372	8331	5510	8792	5419	9278	5319
	32.5	7021	5092	7283	5253	7758	5216	8105	5325	8222	5463	8670	5370	9139	5267
	35.0	6963	5063	7209	5217	7666	5173	8000	5279	8113	5416	8548	5321	9000	5216
	37.5	6906	5034	7136	5181	7574	5131	7895	5233	8004	5369	8426	5272	8861	5165
	40.0	6848	5004	7063	5145	7482	5088	7790	5187	7895	5322	8304	5224	8722	5114
	43.0	6779	4969	6975	5102	7371	5038	7664	5133	7764	5266	8157	5166	8555	5053
100	20.0	9063	6563	9507	6823	10245	6830	10787	7006	10958	7190	11601	7085	12293	6973
	22.5	9063	6563	9470	6804	10157	6788	10656	6948	10822	7130	11448	7023	12119	6907
	25.0	8993	6527	9378	6759	10042	6735	10525	6890	10686	7070	11296	6961	11945	6842
	27.5	8920	6490	9287	6713	9927	6681	10393	6832	10550	7011	11143	6900	11771	6777
	30.0	8848	6454	9195	6668	9812	6628	10262	6774	10413	6952	10990	6838	11597	6713
	32.5	8776	6417	9103	6623	9697	6575	10131	6716	10277	6894	10837	6777	11423	6649
	35.0	8704	6381	9012	6578	9582	6522	10000	6659	10141	6835	10685	6717	11250	6585
	37.5	8632	6344	8920	6533	9467	6470	9869	6602	10005	6777	10532	6656	11076	6522
	40.0	8560	6308	8828	6488	9352	6417	9738	6546	9868	6719	10379	6596	10902	6459
	43.0	8474	6265	8718	6435	9214	6355	9580	6478	9705	6650	10196	6524	10693	6384
125	20.0	11329	8317	11883	8651	12807	8656	13484	8886	13698	9127	14501	8994	15366	8852
	22.5	11329	8317	11837	8628	12696	8605	13320	8814	13527	9053	14310	8918	15149	8772
	25.0	11241	8273	11723	8572	12552	8539	13156	8743	13357	8980	14119	8842	14931	8692
	27.5	11151	8228	11608	8516	12408	8473	12992	8671	13187	8907	13929	8766	14714	8612
	30.0	11060	8183	11494	8460	12265	8408	12828	8600	13017	8835	13738	8691	14497	8533
	32.5	10970	8137	11379	8405	12121	8342	12664	8530	12846	8763	13547	8616	14279	8454
	35.0	10880	8093	11265	8349	11977	8277	12500	8459	12676	8691	13356	8541	14062	8376
	37.5	10790	8048	11150	8294	11834	8213	12336	8389	12506	8619	13165	8467	13845	8298
	40.0	10700	8003	11035	8239	11690	8148	12172	8319	12335	8548	12974	8393	13627	8220
	43.0	10592	7950	10898	8173	11518	8071	11975	8236	12131	8462	12745	8304	13367	8127

2-6.Heating capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PDFY-P-VM-A

SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚CWB	SHC	SHC	SHC	SHC
20	-15.0	1555	1532	1509	1500
	-10.0	1774	1751	1728	1601
	-5.0	1994	1970	1809	1601
	0.0	2213	2190	1809	1601
	2.5	2322	2250	1809	1601
	6.0	2343	2250	1809	1601
	7.5	2441	2250	1809	1601
	10.0	2605	2250	1809	1601
	12.5	2769	2250	1809	1601
	15.5	2807	2250	1809	1601
25	-15.0	1935	1907	1878	1866
	-10.0	2208	2179	2151	1992
	-5.0	2481	2452	2252	1992
	0.0	2754	2725	2252	1992
	2.5	2890	2800	2252	1992
	6.0	2915	2800	2252	1992
	7.5	3038	2800	2252	1992
	10.0	3242	2800	2252	1992
	12.5	3446	2800	2252	1992
	15.5	3493	2800	2252	1992
32	-15.0	2454	2417	2381	2366
	-10.0	2800	2763	2727	2525
	-5.0	3146	3109	2855	2525
	0.0	3491	3455	2855	2525
	2.5	3664	3550	2855	2525
	6.0	3696	3550	2855	2525
	7.5	3852	3550	2855	2525
	10.0	4111	3550	2855	2525
	12.5	4370	3550	2855	2525
	15.5	4428	3550	2855	2525
40	-15.0	3111	3064	3018	2999
	-10.0	3549	3503	3456	3201
	-5.0	3987	3941	3619	3201
	0.0	4426	4379	3619	3201
	2.5	4645	4500	3619	3201
	6.0	4686	4500	3619	3201
	7.5	4883	4500	3619	3201
	10.0	5211	4500	3619	3201
	12.5	5539	4500	3619	3201
	15.5	5613	4500	3619	3201
50	-15.0	3871	3813	3755	3732
	-10.0	4416	4359	4301	3984
	-5.0	4962	4904	4503	3984
	0.0	5508	5450	4503	3984
	2.5	5780	5600	4503	3984
	6.0	5831	5600	4503	3984
	7.5	6076	5600	4503	3984
	10.0	6484	5600	4503	3984
	12.5	6893	5600	4503	3984
	15.5	6986	5600	4503	3984

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚CWB	SHC	SHC	SHC	SHC
63	-15.0	4908	4835	4761	4732
	-10.0	5599	5526	5453	5051
	-5.0	6291	6218	5709	5051
	0.0	6983	6910	5709	5051
	2.5	7329	7100	5709	5051
	6.0	7393	7100	5709	5051
	7.5	7704	7100	5709	5051
	10.0	8221	7100	5709	5051
	12.5	8739	7100	5709	5051
	15.5	8857	7100	5709	5051
71	-15.0	5530	5447	5365	5332
	-10.0	6309	6227	6144	5691
	-5.0	7089	7006	6433	5691
	0.0	7868	7786	6433	5691
	2.5	8258	8000	6433	5691
	6.0	8330	8000	6433	5691
	7.5	8680	8000	6433	5691
	10.0	9264	8000	6433	5691
	12.5	9847	8000	6433	5691
	15.5	9979	8000	6433	5691
80	-15.0	6221	6128	6036	5998
	-10.0	7098	7005	6912	6402
	-5.0	7975	7882	7237	6402
	0.0	8852	8759	7237	6402
	2.5	9290	9000	7237	6402
	6.0	9371	9000	7237	6402
	7.5	9765	9000	7237	6402
	10.0	10421	9000	7237	6402
	12.5	11078	9000	7237	6402
	15.5	11227	9000	7237	6402
100	-15.0	7742	7626	7511	7465
	-10.0	8833	8718	8602	7967
	-5.0	9924	9809	9006	7967
	0.0	11015	10900	9006	7967
	2.5	11561	11200	9006	7967
	6.0	11662	11200	9006	7967
	7.5	12152	11200	9006	7967
	10.0	12969	11200	9006	7967
	12.5	13786	11200	9006	7967
	15.5	13971	11200	9006	7967
125	-15.0	9677	9533	9389	9331
	-10.0	11041	10897	10753	9959
	-5.0	12405	12261	11258	9959
	0.0	13769	13625	11258	9959
	2.5	14451	14000	11258	9959
	6.0	14577	14000	11258	9959
	7.5	15190	14000	11258	9959
	10.0	16211	14000	11258	9959
	12.5	17232	14000	11258	9959
	15.5	17464	14000	11258	9959

2-7.Cooling Capacity (In combination with PQRY-P200·250YMF-B)

PDFY-P-VM-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Water temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚C	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	10	1914	1567	1980	1623	2105	1609	2200	1654	2229	1706	2354	1681	2486	1653
	20	1844	1535	1908	1591	2029	1577	2120	1622	2148	1674	2268	1650	2396	1623
	30	1740	1487	1800	1543	1914	1529	2000	1575	2026	1627	2140	1604	2260	1579
	40	1514	1385	1566	1441	1665	1428	1740	1475	1763	1528	1862	1507	1966	1484
	45	1427	1346	1476	1402	1569	1390	1640	1437	1661	1490	1755	1470	1853	1448
25	10	2393	1796	2475	1853	2632	1837	2750	1880	2786	1931	2943	1901	3108	1868
	20	2306	1754	2385	1810	2536	1795	2650	1838	2684	1889	2836	1860	2995	1828
	30	2175	1690	2250	1747	2393	1732	2500	1776	2533	1827	2675	1799	2825	1769
	40	1892	1557	1958	1613	2081	1599	2175	1644	2203	1696	2327	1671	2458	1644
	45	1784	1507	1845	1563	1962	1549	2050	1594	2077	1647	2194	1623	2317	1597
32	10	3015	2157	3119	2220	3316	2201	3465	2246	3510	2300	3708	2263	3915	2222
	20	2905	2101	3005	2163	3195	2145	3339	2190	3382	2244	3573	2209	3773	2169
	30	2741	2018	2835	2079	3015	2062	3150	2107	3191	2162	3371	2128	3560	2090
	40	2384	1842	2466	1903	2623	1886	2741	1934	2776	1989	2932	1959	3097	1925
	45	2247	1776	2325	1837	2472	1821	2583	1869	2617	1925	2764	1896	2919	1864
40	10	3828	2825	3960	2911	4211	2887	4400	2951	4457	3028	4708	2980	4972	2928
	20	3689	2755	3816	2841	4058	2817	4240	2882	4295	2959	4537	2913	4791	2863
	30	3480	2652	3600	2738	3828	2715	4000	2781	4052	2858	4280	2814	4520	2766
	40	3028	2436	3132	2521	3330	2499	3480	2567	3525	2645	3724	2606	3932	2563
	45	2854	2354	2952	2440	3139	2418	3280	2487	3323	2566	3510	2528	3706	2487
50	10	4785	3498	4950	3604	5264	3573	5500	3651	5572	3744	5885	3685	6215	3619
	20	4611	3411	4770	3516	5072	3486	5300	3564	5369	3658	5671	3600	5989	3537
	30	4350	3281	4500	3386	4785	3357	5000	3436	5065	3530	5350	3475	5650	3415
	40	3785	3008	3915	3112	4163	3084	4350	3166	4407	3262	4655	3213	4916	3159
	45	3567	2905	3690	3009	3924	2983	4100	3065	4153	3161	4387	3114	4633	3064
63	10	6029	4371	6237	4500	6632	4462	6930	4557	7020	4671	7415	4596	7831	4514
	20	5810	4259	6010	4388	6391	4351	6678	4446	6765	4561	7145	4489	7546	4409
	30	5481	4095	5670	4223	6029	4187	6300	4284	6382	4399	6741	4330	7119	4254
	40	4768	3748	4933	3875	5245	3841	5481	3941	5552	4058	5865	3996	6194	3929
	45	4494	3618	4649	3745	4944	3712	5166	3813	5233	3930	5528	3872	5838	3808
71	10	6795	4939	7029	5086	7474	5043	7810	5151	7912	5281	8357	5196	8825	5103
	20	6548	4813	6773	4960	7202	4918	7526	5027	7624	5157	8053	5075	8504	4985
	30	6177	4628	6390	4775	6795	4733	7100	4843	7192	4975	7597	4897	8023	4811
	40	5374	4238	5559	4383	5911	4345	6177	4458	6257	4591	6609	4522	6980	4446
	45	5065	4092	5240	4237	5572	4199	5822	4314	5898	4448	6230	4382	6579	4309
80	10	7656	5421	7920	5574	8422	5529	8800	5636	8914	5768	9416	5675	9944	5571
	20	7378	5276	7632	5428	8115	5383	8480	5492	8590	5624	9074	5534	9582	5434
	30	6960	5061	7200	5212	7656	5169	8000	5279	8104	5412	8560	5326	9040	5231
	40	6055	4610	6264	4760	6661	4718	6960	4832	7050	4967	7447	4891	7865	4807
	45	5707	4441	5904	4590	6278	4550	6560	4666	6645	4802	7019	4729	7413	4649
100	10	9570	6825	9900	7020	10527	6962	11000	7102	11143	7271	11770	7154	12430	7025
	20	9222	6645	9540	6839	10144	6782	10600	6923	10738	7093	11342	6980	11978	6855
	30	8700	6379	9000	6572	9570	6517	10000	6659	10130	6831	10700	6723	11300	6604
	40	7569	5819	7830	6011	8326	5959	8700	6106	8813	6279	9309	6183	9831	6078
	45	7134	5610	7380	5801	7847	5750	8200	5899	8307	6074	8774	5982	9266	5882
125	10	11963	8640	12375	8894	13159	8819	13750	9004	13929	9227	14713	9079	15538	8916
	20	11528	8418	11925	8671	12680	8598	13250	8784	13422	9008	14178	8865	14973	8707
	30	10875	8090	11250	8342	11963	8271	12500	8459	12663	8685	13375	8548	14125	8398
	40	9461	7399	9788	7649	10407	7582	10875	7777	11016	8005	11636	7884	12289	7751
	45	8918	7141	9225	7390	9809	7325	10250	7521	10383	7751	10968	7635	11583	7509

2-8.Heatling Capacity (In combination with PQRY-P200·250YMF-B)

PDFY-P-VM-A

SHC:Sensible heat Capacity(kcal/h)

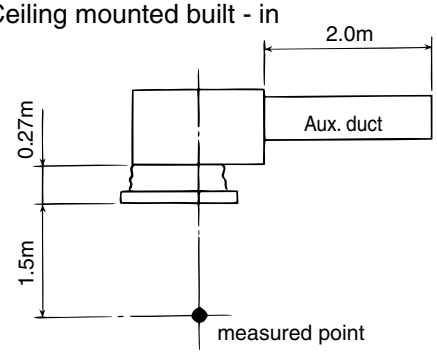
Unit size	Water temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚C	SHC	SHC	SHC	SHC
20	10	1951	1913	1549	1377
	20	2295	2250	1823	1620
	30	2295	2250	1823	1620
	40	2387	2340	1895	1685
	45	2616	2565	2078	1847
25	10	2428	2380	1928	1714
	20	2856	2800	2268	2016
	30	2856	2800	2268	2016
	40	2970	2912	2359	2097
	45	3256	3192	2586	2298
32	10	3078	3018	2444	2173
	20	3621	3550	2876	2556
	30	3621	3550	2876	2556
	40	3766	3692	2991	2658
	45	4128	4047	3278	2914
40	10	3902	3825	3098	2754
	20	4590	4500	3645	3240
	30	4590	4500	3645	3240
	40	4774	4680	3791	3370
	45	5233	5130	4155	3694
50	10	4855	4760	3856	3427
	20	5712	5600	4536	4032
	30	5712	5600	4536	4032
	40	5940	5824	4717	4193
	45	6512	6384	5171	4596

Unit size	Water temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚C	SHC	SHC	SHC	SHC
63	10	6156	6035	4888	4345
	20	7242	7100	5751	5112
	30	7242	7100	5751	5112
	40	7532	7384	5981	5316
	45	8256	8094	6556	5828
71	10	6936	6800	5508	4896
	20	8160	8000	6480	5760
	30	8160	8000	6480	5760
	40	8486	8320	6739	5990
	45	9302	9120	7387	6566
80	10	7803	7650	6197	5508
	20	9180	9000	7290	6480
	30	9180	9000	7290	6480
	40	9547	9360	7582	6739
	45	10465	10260	8311	7387
100	10	9710	9520	7711	6854
	20	11424	11200	9072	8064
	30	11424	11200	9072	8064
	40	11881	11648	9435	8387
	45	13023	12768	10342	9193
125	10	12138	11900	9639	8568
	20	14280	14000	11340	10080
	30	14280	14000	11340	10080
	40	14851	14560	11794	10483
	45	16279	15960	12928	11491

3. Sound levels

3-1. Noise level

Ceiling mounted built - in

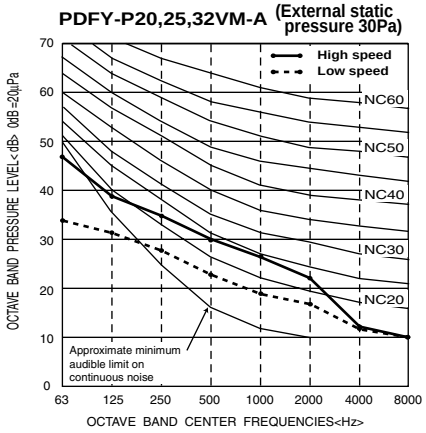


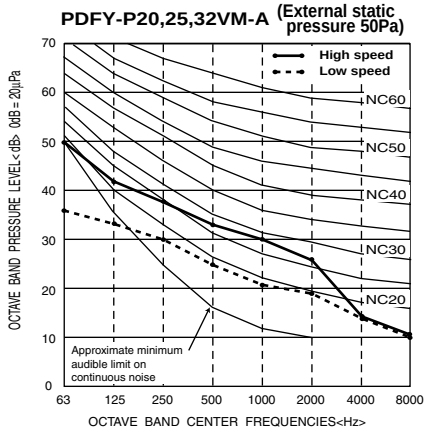
※ PDFY-P20~80VM-A
Low : 30Pa Mid : 50Pa High : 100Pa
PDFY-P100, 125VM-A
Low : 50Pa Mid : 100Pa High : 130Pa

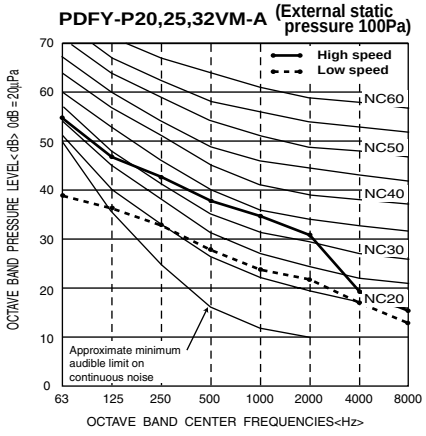
Noise level at anechoic room
(Low-Middle2-Middle1-High) Unit : dB(A)

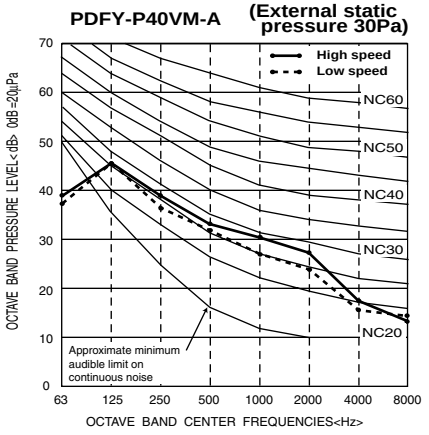
Model	External static pressure※		
	Low	Mid	High
PDFY-P20VM-A PDFY-P25VM-A PDFY-P32VM-A	26-28-31-33	28-30-33-36	31-35-39-41
PDFY-P40VM-A PDFY-P50VM-A	35-35.5-36-37	34-36-37-39	37-39-40-41
PDFY-P63VM-A	28-31-34-37	30-34-36-39	33-37-40-42
PDFY-P71VM-A	30-33-35-38	32-35-37-40	35-38-41-43
PDFY-P80VM-A	31-34-37-39	34-37-40-42	35-39-42-44
PDFY-P100VM-A	34-42(37-44)	36-44(38-45)	38-45(39-46)
PDFY-P125VM-A	40-45(42-46)	42-46(43-47)	42-46(44-47)

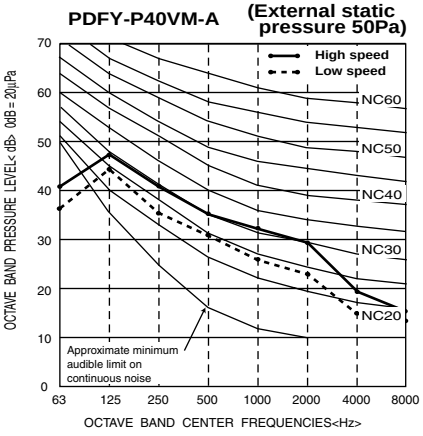
3-2. NC curves

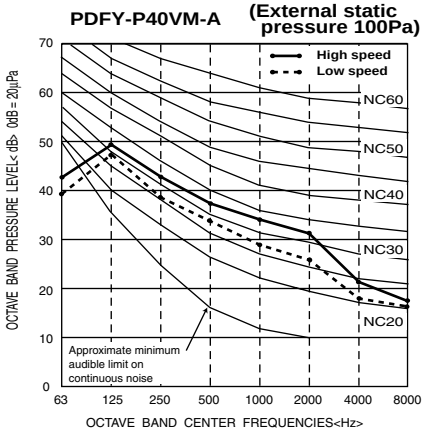




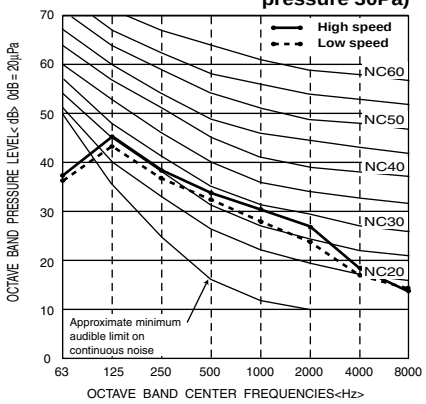




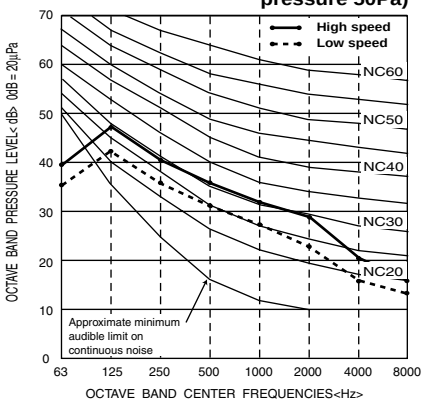




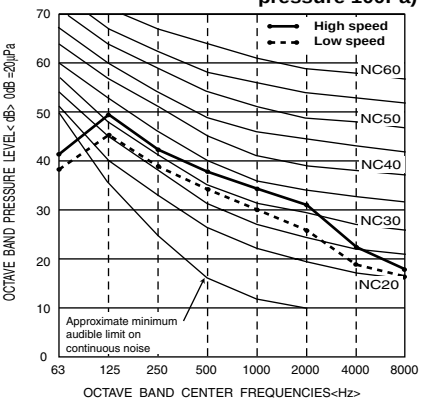
PDFY-P50VM-A (External static pressure 30Pa)



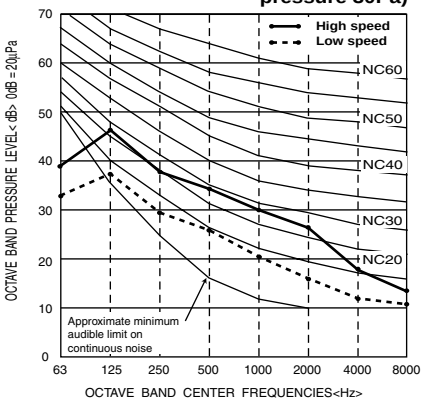
PDFY-P50VM-A (External static pressure 50Pa)



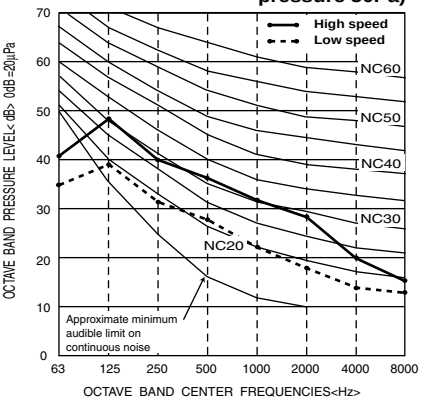
PDFY-P50VM-A (External static pressure 100Pa)



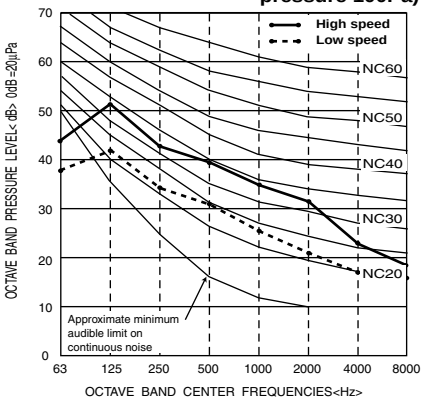
PDFY-P63VM-A (External static pressure 30Pa)



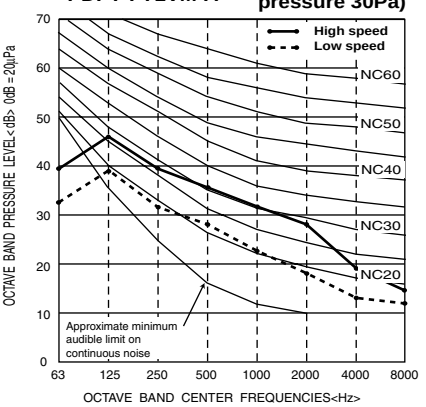
PDFY-P63VM-A (External static pressure 50Pa)



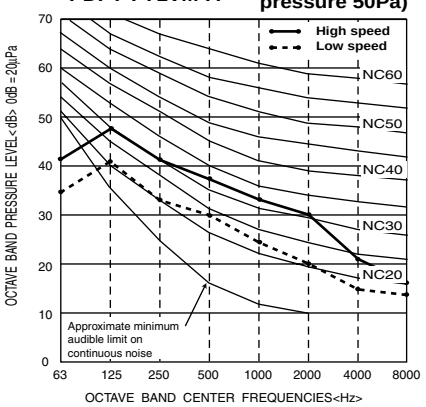
PDFY-P63VM-A (External static pressure 100Pa)



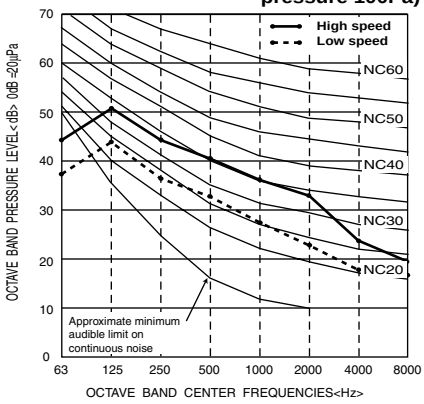
PDFY-P71VM-A (External static pressure 30Pa)



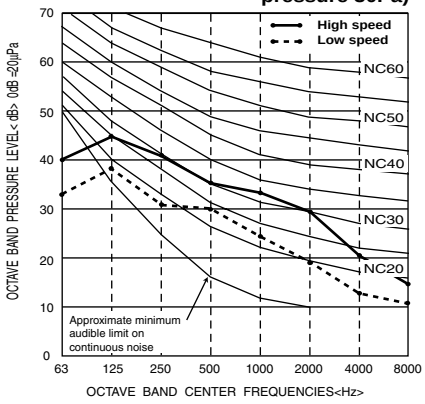
PDFY-P71VM-A (External static pressure 50Pa)



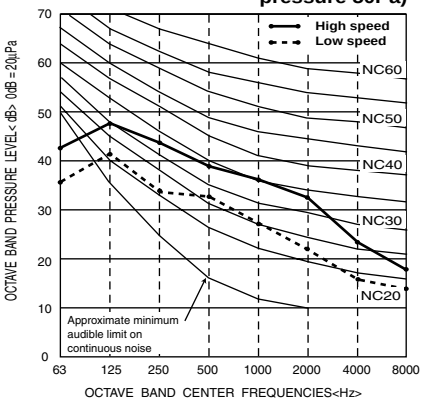
PDFY-P71VM-A (External static pressure 100Pa)



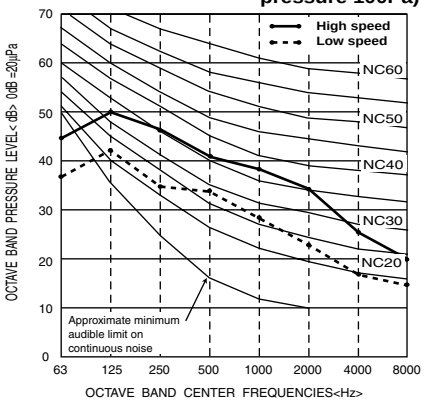
PDFY-P80VM-A (External static pressure 30Pa)



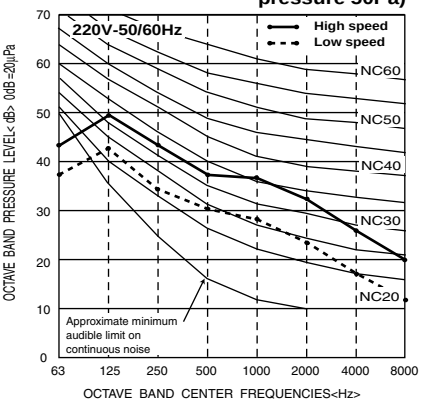
PDFY-P80VM-A (External static pressure 50Pa)



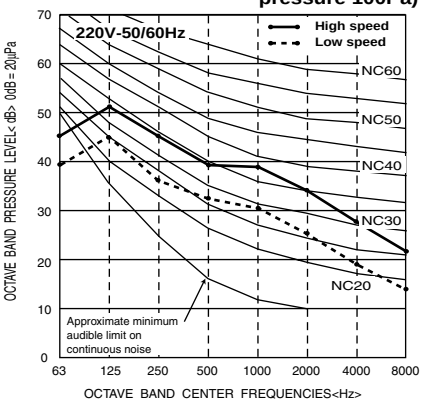
PDFY-P80VM-A (External static pressure 100Pa)



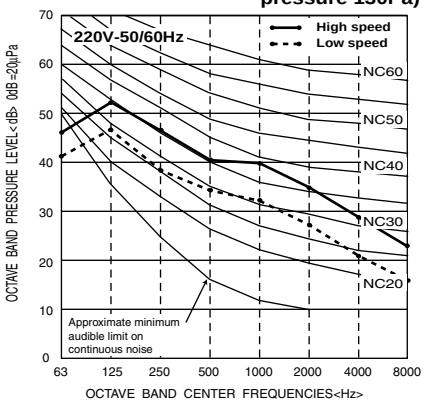
PDFY-P100VM-A (External static pressure 50Pa)



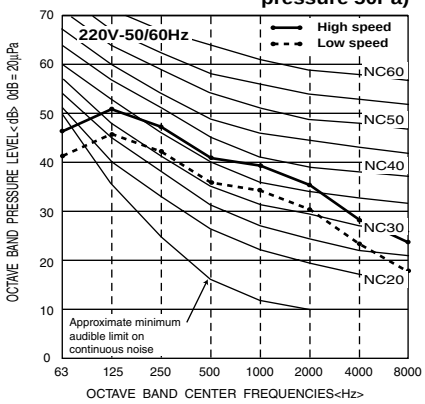
PDFY-P100VM-A (External static pressure 100Pa)



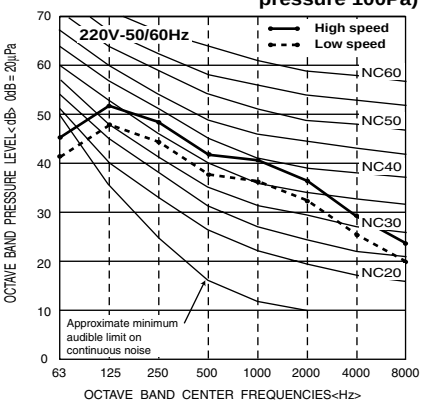
PDFY-P100VM-A (External static pressure 130Pa)



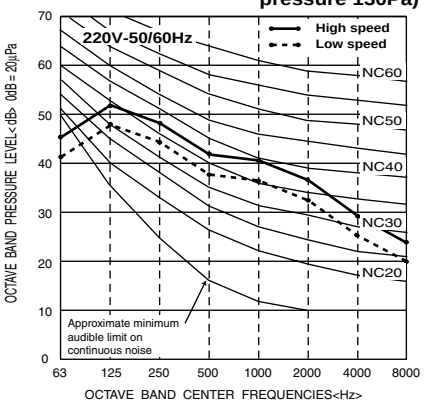
PDFY-P125VM-A (External static pressure 50Pa)



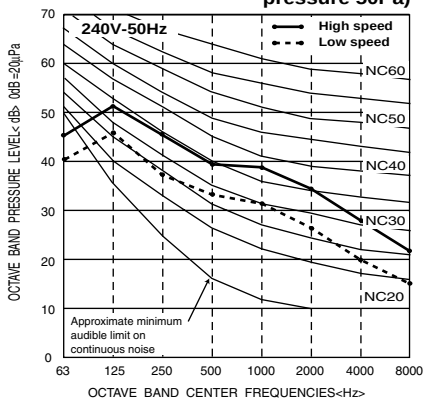
PDFY-P125VM-A (External static pressure 100Pa)



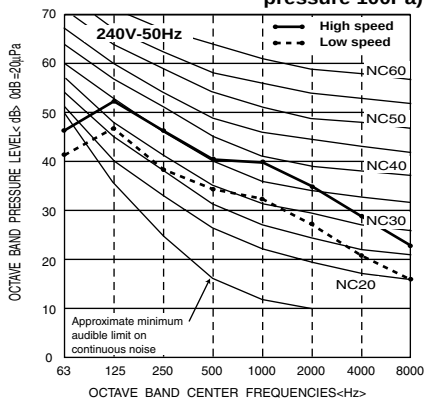
PDFY-P125VM-A (External static pressure 130Pa)



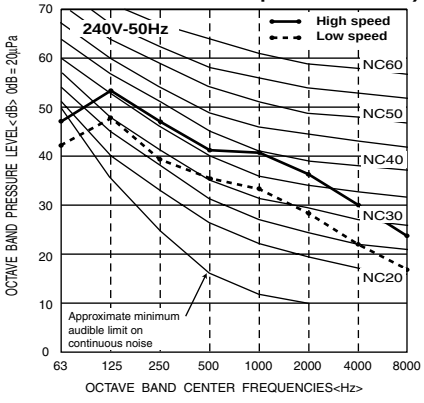
PDFY-P100VM-A (External static pressure 50Pa)



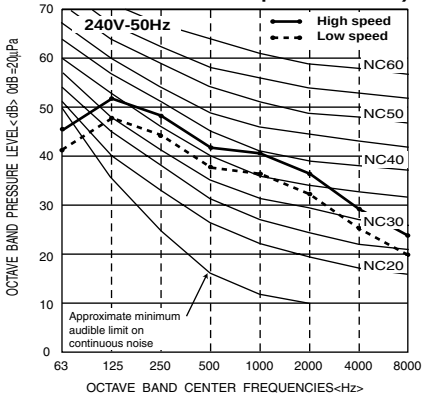
PDFY-P100VM-A (External static pressure 100Pa)



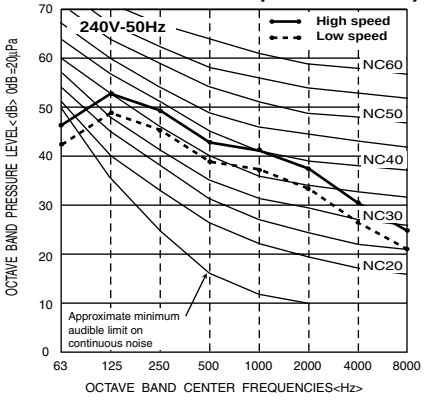
PDFY-P100VM-A (External static pressure 130Pa)



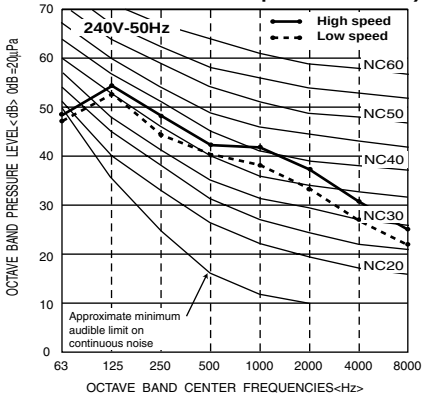
PDFY-P125VM-A (External static pressure 50Pa)



PDFY-P125VM-A (External static pressure 100Pa)

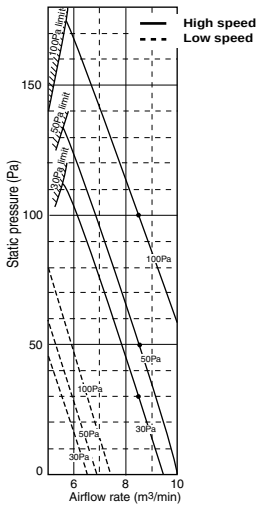


PDFY-P125VM-A (External static pressure 130Pa)

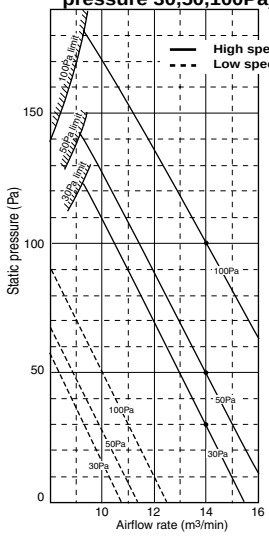


3-3. Fan characteristics curves

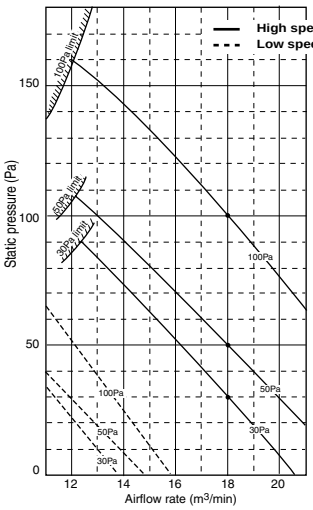
PDFY-P20,25,32VM-A
(External static pressure 30,50,100Pa)



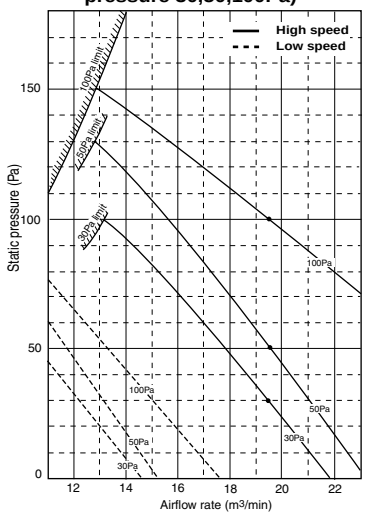
PDFY-P40,50VM-A
(External static pressure 30,50,100Pa)



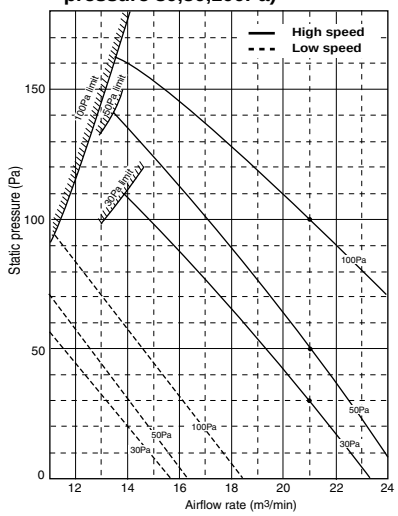
PDFY-P63VM-A
(External static pressure 30,50,100Pa)



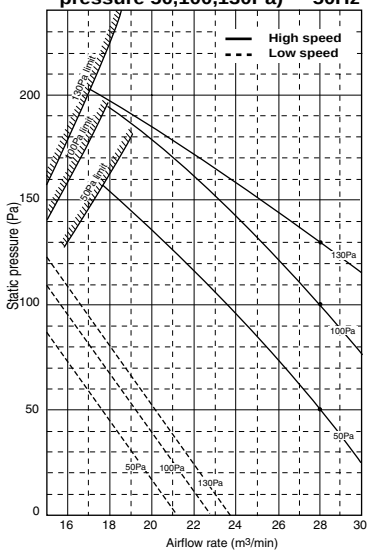
PDFY-P71VM-A
(External static pressure 30,50,100Pa)



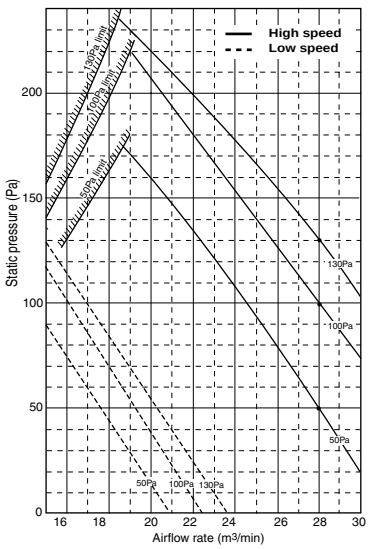
PDFY-P80VM-A
(External static pressure 30,50,100Pa)



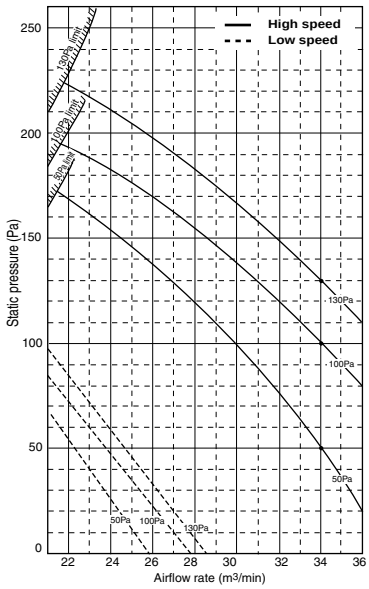
PDFY-P100VM-A
(External static pressure 50,100,130Pa) 50Hz



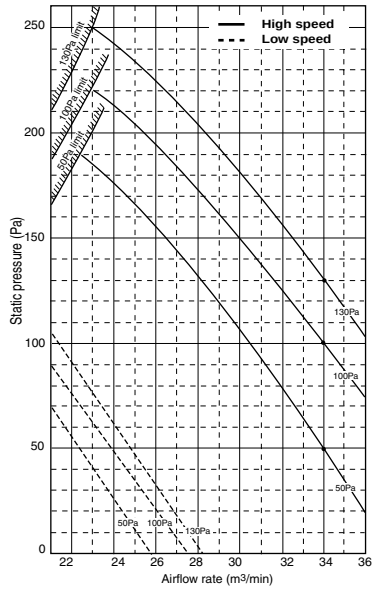
PDFY-P100VM-A
(External static pressure 50,100,130Pa) 60Hz



PDFY-P125VM-A
(External static pressure 50,100,130Pa) 50Hz



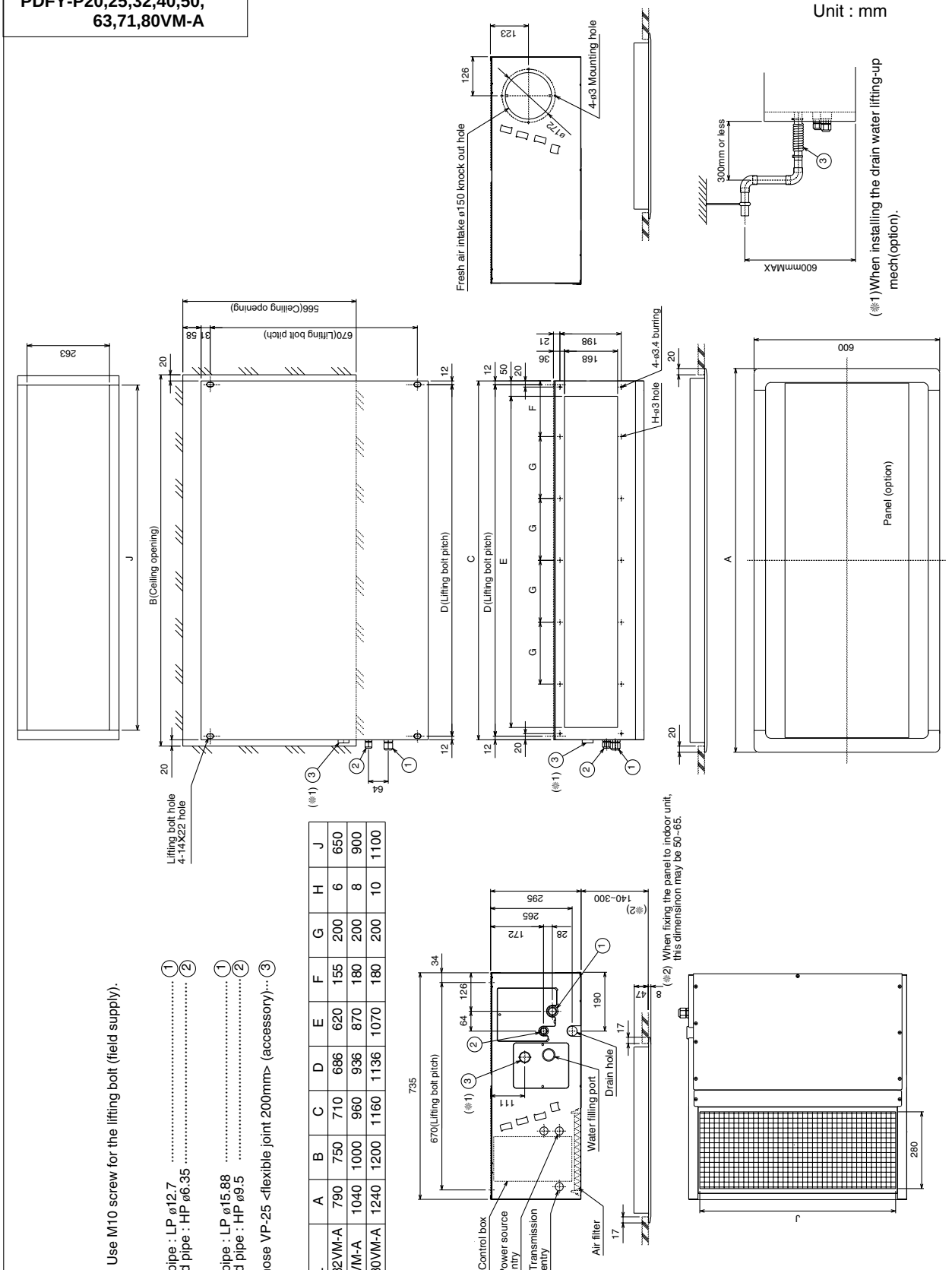
PDFY-P125VM-A
(External static pressure 50,100,130Pa) 60Hz



4. External Dimensions

PDFY-P20,25,32,40,50, 63,71,80VM-A

Unit : mm



MODEL	A	B	C	D	E	F	G	H	J
PDFY-P20·25·32VM-A	790	750	710	686	620	155	200	6	650
PDFY-P40·50VM-A	1040	1000	960	936	870	180	200	8	900
PDFY-P63·71·80VM-A	1240	1200	1160	1136	1070	180	200	10	1100

Note:1. Use M10 screw for the lifting bolt (field supply).

Model 20~40
- ① Gas pipe : LP ø12.7
- ② Liquid pipe : HP ø6.35

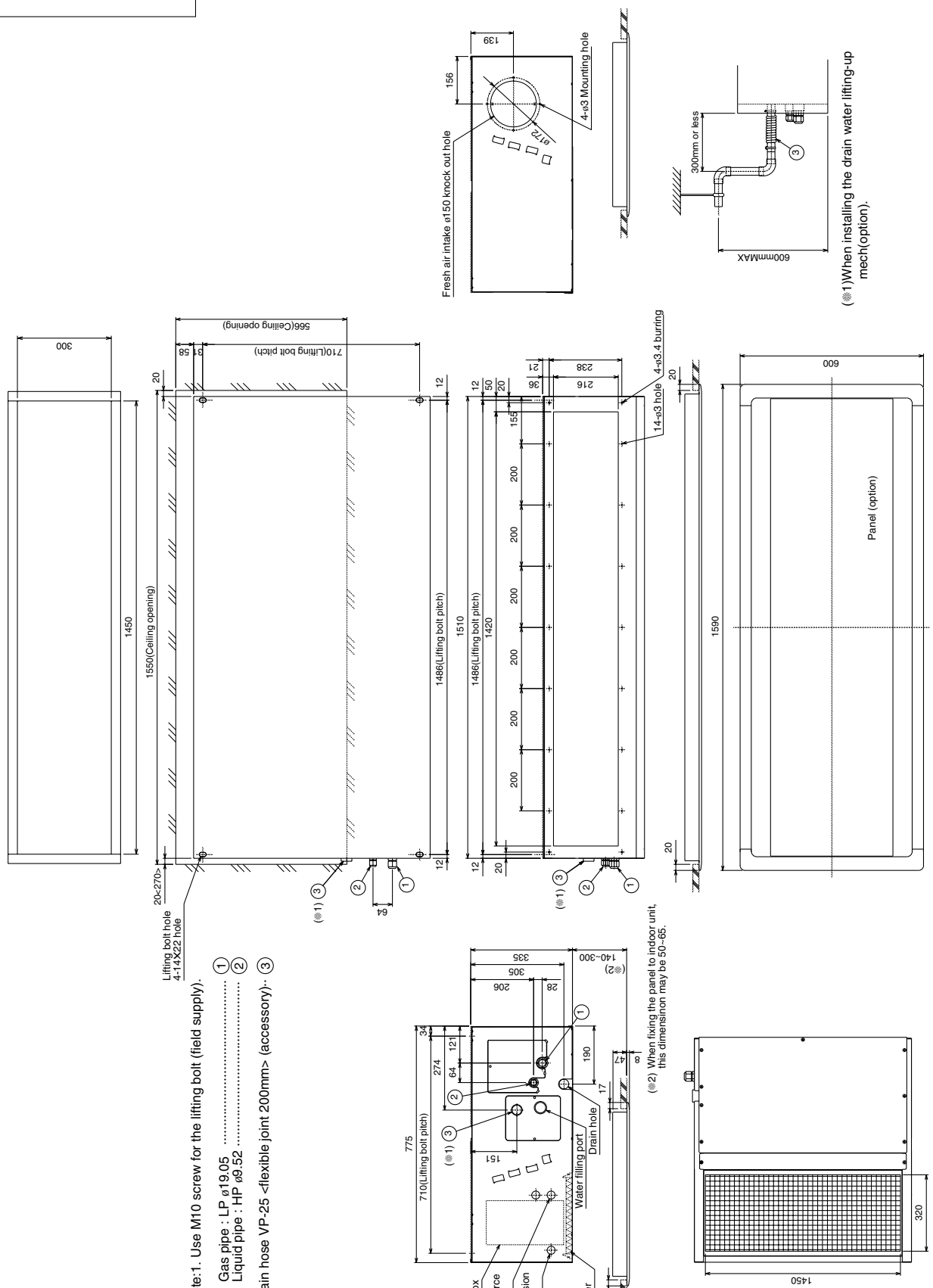
Model 50~60
- ① Gas pipe : LP ø15.88
- ② Liquid pipe : HP ø9.5

Drain hose VP-25 <flexible joint 200mm> (accessory)··· ③

PDFY-P

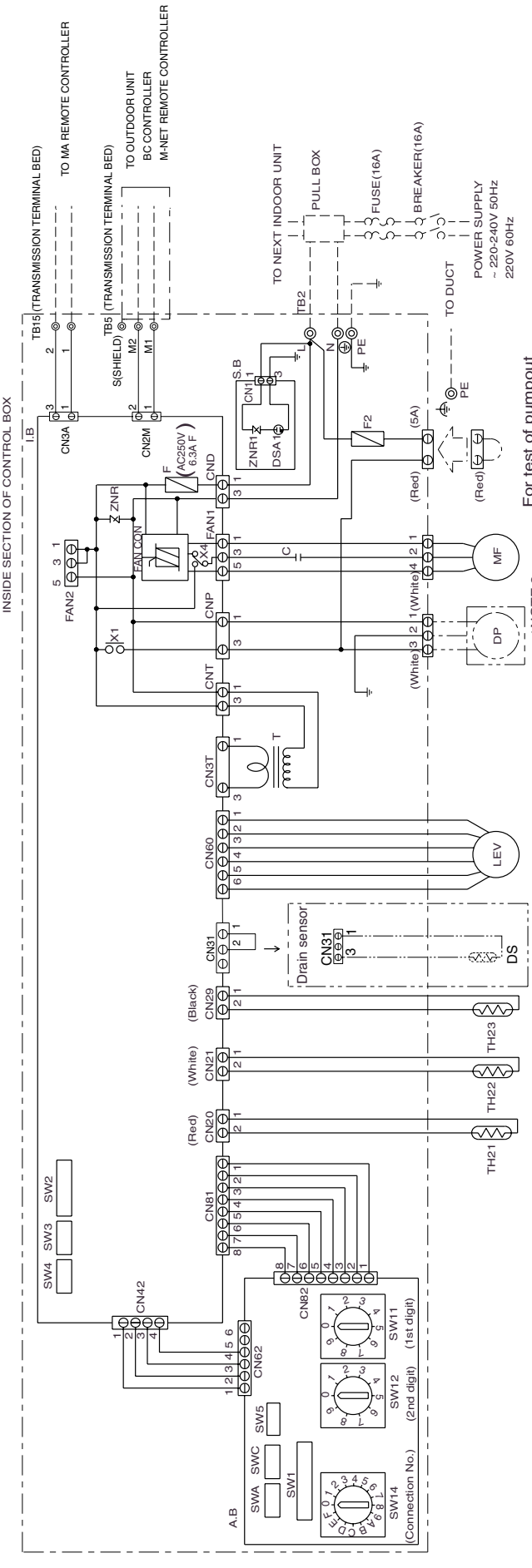
PDFY-P100, 125VM-A

Unit : mm


Fresh air intake ø150 knock out hole
4-ø3 Mounting hole
(※1)When installing the drain water lifting-up mech(option).
300mm or less
600mmMAX
Panel (option)
Lifting bolt hole 4-14X22 hole
Note:1. Use M10 screw for the lifting bolt (field supply).
Gas pipe : LP ø19.05 ..... ①
Liquid pipe : HP ø9.52 ..... ②
Drain hose VP-25 <flexible joint 200mm> (accessory) ..... ③
(※2) When fixing the panel to indoor unit, this dimension may be 50-65.
Control box
Power source entry
Transmission entry
Air filter
Water filling port
Drain hole

5. Electrical Wiring Diagrams

PDFY-P20~P80VM-A



NOTE; 1. TB2, TB5 shown in dotted line are field work.
2. Mark ◎ indicates terminal bed, ⊖ connector, ⊟ board insertion connector or fastening connector of control board.
3. — - - - — :optional parts

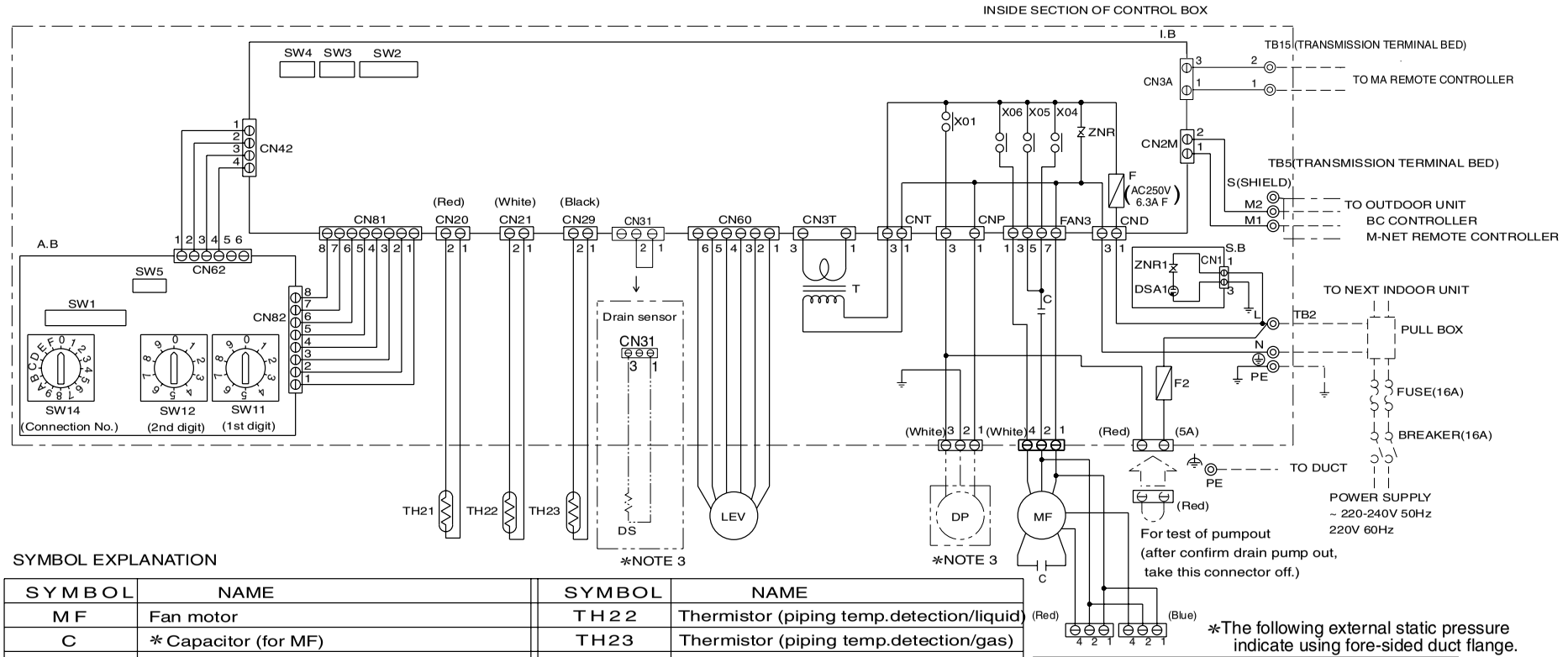
SYMBOL EXPLANATION

SYMBOL	NAME
MF	Fan motor
C	* Capacitor (for MF)
I.B	Indoor controller board
A.B	Address board
TB2	Power source terminal bed
TB5	Transmission terminal bed
TB15	Transmission terminal bed
F	Fuse AC250V 6.3A F
<F2>	Fuse AC250V 5A F
T	Transformer
<DP>	Drain pump
<DS>	Drain sensor
LEV	Electronic linear expan. valve
TH21	Thermistor (inlet temp.detection)

SYMBOL	NAME
TH22	Thermistor (piping temp.detection/liquid)
TH23	Thermistor (piping temp.detection/gas)
SWA(A.B)	Switch (option parts)
SWC(A.B)	Switch (option parts)
SW11(A.B)	Switch (1st digit address set)
SW12(A.B)	Switch (2nd digit address set)
SW14(A.B)	Switch (connection No.set)
SW1(A.B)	Switch(for mode selection)
SW2(I.B)	Switch(for capacity code)
SW3(I.B)	Switch(for mode selection)
SW4(I.B)	Switch(for model selection)
SW5(A.B)	Switch(for voltage selection)
X1,X4	Aux.relay
S.B	Surge absorber board

Inside < > is the optional parts.

PDFY-P-VM-A



SYMBOL EXPLANATION

SYMBOL	NAME	SYMBOL	NAME
MF	Fan motor	TH22	Thermistor (piping temp.detection/liquid)
C	*Capacitor (for MF)	TH23	Thermistor (piping temp.detection/gas)
I.B	Indoor controller board	SWA(A.B)	Switch (option parts)
A.B	Address board	SWC(A.B)	Switch (option parts)
TB2	Power source terminal bed	SW11(A.B)	Switch (1st digit address set)
TB5	Transmission terminal bed	SW12(A.B)	Switch (2nd digit address set)
TB15	Transmission terminal bed	SW14(A.B)	Switch (connection No.set)
F	Fuse AC250V 6.3A F	SW1(A.B)	Switch(for mode selection)
<F2>	Fuse AC250V 5A F	SW2(I.B)	Switch(for capacity code)
T	Transformer	SW3(I.B)	Switch(for mode selection)
<DP>	Drain pump	SW4(I.B)	Switch(for model selection)
<DS>	Drain sensor	SW5(A.B)	Switch(for voltage selection)
LEV	Electronic linear expan. valve	X01,X04 ~ X06	Aux.relay
TH21	Thermistor (inlet temp.detection)	S.B	Surge absorber board

Inside < > is the optional parts.

*The following external static pressure indicate using fore-sided duct flange.

Connector color
White··· In case of used 50Pa.
Red ··· In case of used 100Pa or 70Pa included <h.e.f>.
Blue ··· In case of used 130Pa or 100Pa included <h.e.f>.
(<h.e.f>:high efficiency filter)

NOTE;1.TB2,TB5 shown in dotted line are field work.
2.Mark ◎ indicates terminal bed, ⊖connector, ⊡ board insertion connector or fastening connector of control board.
3. — - - — :optional parts

*Capacitor
MODELS 100 5.0μF
MODELS 125 8.0μF

6. Option

Description	Model	Applicable capacity
Drain water lift-up kit	PAC-KD02DM-F	P20/P25/P32/P40/P50 P63/P71/P80/P100/P125
Square duct flange	PAC-KD32KDF-F	P20/P25/P32
	PAC-KD50KDF-F	P40/P50
	PAC-KD80KDF-F	P63/P71/P80
	PAC-KD125KDF-F	P100/P125
Circular duct flange	PAC-KD32EDF-F	P20/P25/P32
	PAC-KD50EDF-F	P40/P50
	PAC-KD80EDF-F	P63/P71/P80
	PAC-KD125EDF-F	P100/P125
Filter box for rear suction	PAC-KD80RTB	P20/P25/P32
	PAC-KD81RTB	P40/P50
	PAC-KD83RTB	P63/P71/P80
	PAC-KD84RTB	P100/P125
Canvas duct for bottom suction	PAC-KD90DF	P20/P25/P32
	PAC-KD91DF	P40/P50
	PAC-KD93DF	P63/P71/P80
	PAC-KD94DF	P100/P125
Filter box for bottom suction	PAC-KD70TB	P20/P25/P32
	PAC-KD71TB	P40/P50
	PAC-KD73TB	P63/P71/P80
	PAC-KD74TB	P100/P125
High efficiency filter 65%	PAC-KD30AF	P20/P25/P32
	PAC-KD31AF	P40/P50
	PAC-KD33AF	P63/P71/P80
	PAC-KD34AF	P100/P125
High efficiency filter 90%	PAC-KD40AF	P20/P25/P32
	PAC-KD41AF	P40/P50
	PAC-KD43AF	P63/P71/P80
	PAC-KD44AF	P100/P125
Maintenance panel with air intake	CMP-J36DSW	P20/P25/P32
	CMP-J56DSW	P40/P50
	CMP-J90DSW	P63/P71/P80
	CMP-J160DSW	P100/P125

Floor standing(Exposed) PFFY-P-VLEM-A
Floor standing(Concealed) PFFY-P-VLRM-A

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1. Specifications

				PFFY-P20VLEM-A	PFFY-P25VLEM-A	PFFY-P32VLEM-A	PFFY-P40VLEM-A	PFFY-P50VLEM-A	PFFY-P63VLEM-A
Power source				~ 220-240V 50Hz / ~ 208-230V 60Hz					
Cooling capacity	※1		kW	2.2	2.8	3.6	4.5	5.6	7.1
	※2		kcal/h	2,000	2,500	3,150	4,000	5,000	6,300
Heating capacity	※1		kW	2.5	3.2	4.0	5.0	6.3	8.0
Power consumption		Cooling	kW	0.04 / 0.06		0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11
		Heating	kW	0.04 / 0.06		0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11
Current		Cooling	A	0.19 / 0.25		0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47
		Heating	A	0.19 / 0.25		0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47
External finish(Munsel No.)				Acrylic paint (5Y 8/1)					
Dimension		Height	mm	630					
		Width	mm	1,050		1,170		1,410	
		Depth	mm	220					
Net weight			kg	23		25	26	30	32
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)					
Fan	Type			Sirocco fan× 1		Sirocco fan× 2			
	Airflow rate ※3 (Low-High)		m^3/min	5.5-6.5		7.0-9.0	9.0-11.0	12.0-14.0	12.0-15.5
	External static pressure		Pa	0					
Motor	Type			Single phase induction motor					
	Output		kW	0.02		0.03	0.035		0.045
Air filter				PP Honeycomb fabric (washable)					
Refrigerant pipe dimension	Gas (Flare)		mm	ø 12.7				ø 15.88	
	Liquid (Flare)		mm	ø 6.35				ø 9.52	
Drain pipe dimension				Accessary hose ø 27 (top end : ø20)					
Noise level (Low-High) ※3 ※4			dB(A)	34-40		35-40	38-43		40-46

				PFFY-P20VLRM-A	PFFY-P25VLRM-A	PFFY-P32VLRM-A	PFFY-P40VLRM-A	PFFY-P50VLRM-A	PFFY-P63VLRM-A
Power source				~ 220-240V 50Hz / ~ 208-230V 60Hz					
Cooling capacity	※1		kW	2.2	2.8	3.6	4.5	5.6	7.1
	※2		kcal/h	2,000	2,500	3,150	4,000	5,000	6,300
Heating capacity	※1		kW	2.5	3.2	4.0	5.0	6.3	8.0
Power consumption		Cooling	kW	0.04 / 0.06		0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11
		Heating	kW	0.04 / 0.06		0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11
Current		Cooling	A	0.19 / 0.25		0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47
		Heating	A	0.19 / 0.25		0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47
External finish(Munsel No.)				Acrylic paint (3.4Y 7.7/0.8)					
Dimension		Height	mm	639					
		Width	mm	886		1,006		1,246	
		Depth	mm	220					
Net weight			kg	18.5		20	21	25	27
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)					
Fan	Type			Sirocco fan× 1		Sirocco fan× 2			
	Airflow rate ※3 (Low-High)		m^3/min	5.5-6.5		7.0-9.0	9.0-11.0	12.0-14.0	12.0-15.5
	External static pressure		Pa	0					
Motor	Type			Single phase induction motor					
	Output		kW	0.02		0.03	0.035		0.045
Air filter				PP Honeycomb fabric (washable)					
Refrigerant pipe dimension	Gas (Flare)		mm	ø 12.7				ø 15.88	
	Liquid (Flare)		mm	ø 6.35				ø 9.52	
Drain pipe dimension				Accessary hose ø 27 (top end : ø20)					
Noise level (Low-High) ※3 ※4			dB(A)	34-40		35-40	38-43		40-46

Note: ※1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19˚CWB,Outdoor 35˚CDB
Heating : Indoor 20˚CDB,Outdoor 7˚CDB/6˚CWB
※2 Cooling capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19.5˚CWB,Outdoor 35˚CDB (WR2: water 30˚C)
※3 Air flow rate/noise level are in (Low-High)
※4 Measured point : 1m×1m, Power supply : AC240V/50Hz
·1dB(A) lower at AC230V/50Hz
·2dB(A) lower at AC220V/50Hz
·3dB(A) lower at 1.5m×1.5m point

2. Capacity tables

2-1.Cooling Capacity (In combination with PUMY-125YM(A))

PFFY-P-VLEM-AVLRM-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.							
		23˚CDB 16˚CWB		25˚CDB 18˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20 (2.2)	20.0	2.2	1.9	2.3	2.0	2.4	2.0	2.6	2.1
	22.5	2.1	1.9	2.3	2.0	2.4	2.0	2.6	2.1
	25.0	2.1	1.9	2.3	2.0	2.4	2.0	2.5	2.0
	27.5	2.1	1.9	2.2	2.0	2.4	2.0	2.5	2.0
	30.0	2.1	1.9	2.2	2.0	2.3	1.9	2.5	2.0
	32.5	2.0	1.9	2.2	2.0	2.3	1.9	2.5	2.0
	35.0	2.0	1.8	2.1	1.9	2.3	1.9	2.4	2.0
	37.5	2.0	1.8	2.1	1.9	2.2	1.9	2.4	2.0
	40.0	2.0	1.8	2.1	1.9	2.2	1.9	2.4	2.0
	46.0	1.9	1.8	2.0	1.9	2.1	1.9	2.3	1.9
25 (2.8)	20.0	2.8	2.2	2.9	2.3	3.1	2.3	3.3	2.3
	22.5	2.7	2.2	2.9	2.3	3.1	2.3	3.2	2.3
	25.0	2.7	2.2	2.9	2.3	3.1	2.2	3.2	2.3
	27.5	2.7	2.1	2.8	2.3	3.0	2.2	3.2	2.3
	30.0	2.6	2.1	2.8	2.2	3.0	2.2	3.2	2.3
	32.5	2.6	2.1	2.8	2.2	2.9	2.2	3.1	2.3
	35.0	2.6	2.1	2.7	2.2	2.9	2.2	3.1	2.3
	37.5	2.5	2.1	2.7	2.2	2.9	2.2	3.0	2.2
	40.0	2.5	2.1	2.7	2.2	2.8	2.1	3.0	2.2
	46.0	2.4	2.0	2.6	2.1	2.7	2.1	2.9	2.2
32 (3.6)	20.0	3.6	2.6	3.7	2.7	4.0	2.6	4.2	2.7
	22.5	3.5	2.5	3.7	2.6	4.0	2.6	4.2	2.7
	25.0	3.5	2.5	3.7	2.6	3.9	2.6	4.1	2.7
	27.5	3.4	2.5	3.6	2.6	3.9	2.6	4.1	2.7
	30.0	3.4	2.5	3.6	2.6	3.8	2.6	4.1	2.6
	32.5	3.3	2.4	3.6	2.6	3.8	2.5	4.0	2.6
	35.0	3.3	2.4	3.5	2.5	3.7	2.5	4.0	2.6
	37.5	3.2	2.4	3.5	2.5	3.7	2.5	3.9	2.6
	40.0	3.2	2.4	3.4	2.5	3.6	2.5	3.9	2.6
	46.0	3.1	2.3	3.3	2.4	3.5	2.4	3.7	2.5
40 (4.5)	20.0	4.5	3.2	4.7	3.3	5.0	3.3	5.3	3.4
	22.5	4.4	3.2	4.6	3.3	5.0	3.3	5.2	3.4
	25.0	4.3	3.1	4.6	3.3	4.9	3.3	5.2	3.4
	27.5	4.3	3.1	4.6	3.3	4.9	3.2	5.1	3.3
	30.0	4.2	3.1	4.5	3.2	4.8	3.2	5.1	3.3
	32.5	4.2	3.1	4.4	3.2	4.7	3.2	5.0	3.3
	35.0	4.1	3.0	4.4	3.2	4.7	3.2	5.0	3.3
	37.5	4.1	3.0	4.3	3.2	4.6	3.1	4.9	3.2
	40.0	4.0	3.0	4.3	3.1	4.5	3.1	4.8	3.2
	46.0	3.8	2.9	4.1	3.1	4.3	3.0	4.6	3.1
50 (5.6)	20.0	5.5	4.0	5.8	4.2	6.2	4.2	6.6	4.3
	22.5	5.5	4.0	5.8	4.2	6.2	4.2	6.5	4.3
	25.0	5.4	4.0	5.7	4.2	6.1	4.1	6.4	4.2
	27.5	5.3	3.9	5.7	4.1	6.0	4.1	6.4	4.2
	30.0	5.3	3.9	5.6	4.1	5.9	4.1	6.3	4.2
	32.5	5.2	3.9	5.5	4.1	5.9	4.0	6.2	4.2
	35.0	5.1	3.8	5.5	4.0	5.8	4.0	6.2	4.1
	37.5	5.0	3.8	5.4	4.0	5.7	4.0	6.1	4.1
	40.0	5.0	3.8	5.3	4.0	5.6	3.9	6.0	4.1
	46.0	4.8	3.7	5.1	3.9	5.4	3.8	5.8	4.0
63 (7.1)	20.0	7.0	5.0	7.4	5.2	7.9	5.2	8.3	5.3
	22.5	6.9	5.0	7.3	5.2	7.8	5.2	8.2	5.3
	25.0	6.9	4.9	7.3	5.2	7.7	5.1	8.2	5.3
	27.5	6.8	4.9	7.2	5.1	7.7	5.1	8.1	5.2
	30.0	6.7	4.8	7.1	5.1	7.5	5.0	8.0	5.2
	32.5	6.6	4.8	7.0	5.0	7.5	5.0	7.9	5.1
	35.0	6.5	4.7	6.9	5.0	7.3	4.9	7.8	5.1
	37.5	6.4	4.7	6.8	4.9	7.2	4.9	7.7	5.1
	40.0	6.3	4.6	6.7	4.9	7.2	4.8	7.6	5.0
	46.0	6.1	4.5	6.5	4.8	6.9	4.7	7.3	4.9

2-2.Heating Capacity (In combination with PUMY-125YM(A))

PFFY-P-VLEM-A,VLRM-A

SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB		
		15.0	20.0	25.0
	˚CWB	SHC	SHC	SHC
20	-12.0	1.6	1.6	1.5
	-10.0	1.7	1.6	1.6
	-5.0	1.9	1.9	1.9
	0.0	2.2	2.1	2.1
	2.5	2.3	2.3	2.3
	6.0	2.5	2.5	2.5
	7.5	2.6	2.6	2.5
	10.0	2.8	2.7	2.5
	12.5	2.9	2.8	2.5
	15.5	3.1	2.8	2.5
25	-12.0	2.0	2.0	2.0
	-10.0	2.1	2.1	2.1
	-5.0	2.4	2.4	2.4
	0.0	2.8	2.8	2.7
	2.5	3.0	2.9	2.9
	6.0	3.2	3.2	3.2
	7.5	3.3	3.3	3.2
	10.0	3.5	3.5	3.2
	12.5	3.7	3.5	3.2
	15.5	3.9	3.5	3.2
32	-12.0	2.5	2.5	2.5
	-10.0	2.7	2.6	2.6
	-5.0	3.1	3.0	3.0
	0.0	3.5	3.4	3.4
	2.5	3.7	3.7	3.6
	6.0	4.0	4.0	3.9
	7.5	4.2	4.1	4.0
	10.0	4.4	4.4	4.0
	12.5	4.7	4.4	4.0
	15.5	4.9	4.4	4.0

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB		
		15.0	20.0	25.0
	˚CWB	SHC	SHC	SHC
40	-12.0	3.2	3.1	3.1
	-10.0	3.4	3.3	3.2
	-5.0	3.8	3.8	3.7
	0.0	4.3	4.3	4.2
	2.5	4.6	4.6	4.5
	6.0	5.0	5.0	4.9
	7.5	5.2	5.2	5.0
	10.0	5.5	5.5	5.0
	12.5	5.9	5.5	5.0
	15.5	6.2	5.5	5.0
50	-12.0	4.0	3.9	3.9
	-10.0	4.2	4.2	4.1
	-5.0	4.8	4.8	4.7
	0.0	5.5	5.4	5.3
	2.5	5.8	5.8	5.7
	6.0	6.3	6.3	6.2
	7.5	6.6	6.5	6.2
	10.0	7.0	6.9	6.2
	12.5	7.4	7.0	6.2
	15.5	7.7	7.0	6.2
63	-12.0	5.1	5.0	4.9
	-10.0	5.4	5.3	5.2
	-5.0	6.1	6.0	5.9
	0.0	6.9	6.9	6.8
	2.5	7.4	7.3	7.2
	6.0	8.0	8.0	7.9
	7.5	8.3	8.3	7.9
	10.0	8.8	8.8	7.9
	12.5	9.4	8.8	7.9
	15.5	9.8	8.8	7.9

2-3.Cooling Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PFFY-P-VLEM-A,VLRM-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	20.0	2.2	1.9	2.2	2.0	2.3	1.9	2.3	2.0	2.4	2.0	2.5	2.0	2.6	2.0
(2.2)	22.5	2.1	1.9	2.2	2.0	2.3	1.9	2.3	2.0	2.4	2.0	2.4	2.0	2.5	1.9
	25.0	2.1	1.9	2.2	1.9	2.2	1.9	2.3	2.0	2.3	2.0	2.4	2.0	2.5	1.9
	27.5	2.1	1.9	2.1	1.9	2.2	1.9	2.3	1.9	2.3	2.0	2.4	2.0	2.5	1.9
	30.0	2.1	1.9	2.1	1.9	2.2	1.9	2.2	1.9	2.3	2.0	2.4	2.0	2.5	1.9
	32.5	2.0	1.9	2.1	1.9	2.2	1.9	2.2	1.9	2.3	2.0	2.4	2.0	2.4	1.9
	35.0	2.0	1.8	2.1	1.9	2.2	1.9	2.2	1.9	2.2	2.0	2.3	2.0	2.4	1.9
	37.5	2.0	1.8	2.0	1.9	2.1	1.9	2.2	1.9	2.2	2.0	2.3	1.9	2.4	1.9
	40.0	2.0	1.8	2.0	1.9	2.1	1.9	2.2	1.9	2.2	2.0	2.3	1.9	2.4	1.9
	43.0	2.0	1.8	2.0	1.9	2.1	1.8	2.1	1.9	2.2	2.0	2.3	1.9	2.3	1.9
25	20.0	2.7	2.2	2.8	2.2	2.9	2.2	3.0	2.2	3.0	2.3	3.1	2.2	3.2	2.2
(2.8)	22.5	2.7	2.2	2.8	2.2	2.9	2.2	2.9	2.2	3.0	2.3	3.1	2.2	3.2	2.2
	25.0	2.7	2.2	2.7	2.2	2.9	2.2	2.9	2.2	3.0	2.3	3.1	2.2	3.2	2.2
	27.5	2.7	2.1	2.7	2.2	2.8	2.2	2.9	2.2	2.9	2.3	3.1	2.2	3.2	2.2
	30.0	2.6	2.1	2.7	2.2	2.8	2.1	2.9	2.2	2.9	2.2	3.0	2.2	3.1	2.1
	32.5	2.6	2.1	2.7	2.2	2.8	2.1	2.8	2.2	2.9	2.2	3.0	2.2	3.1	2.1
	35.0	2.6	2.1	2.6	2.2	2.7	2.1	2.8	2.2	2.9	2.2	3.0	2.2	3.1	2.1
	37.5	2.5	2.1	2.6	2.1	2.7	2.1	2.8	2.1	2.8	2.2	2.9	2.2	3.1	2.1
	40.0	2.5	2.1	2.6	2.1	2.7	2.1	2.7	2.1	2.8	2.2	2.9	2.2	3.0	2.1
	43.0	2.5	2.1	2.5	2.1	2.7	2.1	2.7	2.1	2.8	2.2	2.9	2.1	3.0	2.1
32	20.0	3.5	2.5	3.6	2.6	3.7	2.5	3.8	2.5	3.9	2.6	4.0	2.5	4.2	2.5
(3.6)	22.5	3.5	2.5	3.6	2.6	3.7	2.5	3.8	2.5	3.9	2.6	4.0	2.5	4.1	2.4
	25.0	3.5	2.5	3.5	2.5	3.7	2.5	3.7	2.5	3.8	2.6	4.0	2.5	4.1	2.4
	27.5	3.4	2.5	3.5	2.5	3.6	2.5	3.7	2.5	3.8	2.6	3.9	2.5	4.1	2.4
	30.0	3.4	2.5	3.5	2.5	3.6	2.5	3.7	2.5	3.7	2.5	3.9	2.5	4.0	2.4
	32.5	3.3	2.4	3.4	2.5	3.6	2.4	3.6	2.5	3.7	2.5	3.9	2.5	4.0	2.4
	35.0	3.3	2.4	3.4	2.5	3.5	2.4	3.6	2.4	3.7	2.5	3.8	2.5	4.0	2.4
	37.5	3.3	2.4	3.3	2.5	3.5	2.4	3.6	2.4	3.6	2.5	3.8	2.4	3.9	2.4
	40.0	3.2	2.4	3.3	2.4	3.5	2.4	3.5	2.4	3.6	2.5	3.7	2.4	3.9	2.4
	43.0	3.2	2.4	3.3	2.4	3.4	2.4	3.5	2.4	3.6	2.5	3.7	2.4	3.8	2.3
40	20.0	4.4	3.2	4.5	3.2	4.7	3.2	4.8	3.2	4.9	3.3	5.0	3.2	5.2	3.1
(4.5)	22.5	4.4	3.2	4.5	3.2	4.6	3.1	4.7	3.2	4.8	3.3	5.0	3.2	5.2	3.1
	25.0	4.3	3.1	4.4	3.2	4.6	3.1	4.7	3.1	4.8	3.2	5.0	3.2	5.1	3.1
	27.5	4.3	3.1	4.4	3.2	4.5	3.1	4.6	3.1	4.7	3.2	4.9	3.1	5.1	3.0
	30.0	4.2	3.1	4.3	3.2	4.5	3.1	4.6	3.1	4.7	3.2	4.9	3.1	5.0	3.0
	32.5	4.2	3.1	4.3	3.1	4.5	3.1	4.5	3.1	4.6	3.2	4.8	3.1	5.0	3.0
	35.0	4.1	3.0	4.2	3.1	4.4	3.0	4.5	3.1	4.6	3.2	4.8	3.1	5.0	3.0
	37.5	4.1	3.0	4.2	3.1	4.4	3.0	4.5	3.0	4.5	3.1	4.7	3.1	4.9	3.0
	40.0	4.1	3.0	4.1	3.1	4.3	3.0	4.4	3.0	4.5	3.1	4.7	3.0	4.9	3.0
	43.0	4.0	3.0	4.1	3.0	4.3	3.0	4.4	3.0	4.4	3.1	4.6	3.0	4.8	2.9
50	20.0	5.5	4.0	5.6	4.1	5.8	4.0	5.9	4.0	6.0	4.2	6.3	4.0	6.5	3.9
(5.6)	22.5	5.4	4.0	5.5	4.1	5.8	4.0	5.9	4.0	6.0	4.1	6.2	4.0	6.4	3.9
	25.0	5.4	4.0	5.5	4.0	5.7	4.0	5.8	4.0	5.9	4.1	6.2	4.0	6.4	3.9
	27.5	5.3	3.9	5.4	4.0	5.7	3.9	5.8	4.0	5.9	4.1	6.1	4.0	6.3	3.9
	30.0	5.3	3.9	5.4	4.0	5.6	3.9	5.7	3.9	5.8	4.1	6.0	4.0	6.3	3.8
	32.5	5.2	3.9	5.3	4.0	5.5	3.9	5.7	3.9	5.8	4.0	6.0	3.9	6.2	3.8
	35.0	5.2	3.8	5.3	3.9	5.5	3.9	5.6	3.9	5.7	4.0	5.9	3.9	6.2	3.8
	37.5	5.1	3.8	5.2	3.9	5.4	3.8	5.5	3.9	5.7	4.0	5.9	3.9	6.1	3.8
	40.0	5.0	3.8	5.2	3.9	5.4	3.8	5.5	3.8	5.6	4.0	5.8	3.9	6.0	3.8
	43.0	5.0	3.8	5.1	3.8	5.3	3.8	5.4	3.8	5.5	3.9	5.8	3.8	6.0	3.7
63	20.0	7.0	5.0	7.1	5.1	7.4	5.0	7.5	5.0	7.7	5.1	8.0	5.0	8.2	4.8
(7.1)	22.5	6.9	4.9	7.0	5.0	7.3	4.9	7.5	4.9	7.6	5.1	7.9	4.9	8.2	4.8
	25.0	6.8	4.9	7.0	5.0	7.2	4.9	7.4	4.9	7.5	5.1	7.8	4.9	8.1	4.8
	27.5	6.7	4.9	6.9	5.0	7.2	4.9	7.3	4.9	7.5	5.0	7.7	4.9	8.0	4.7
	30.0	6.7	4.8	6.8	4.9	7.1	4.8	7.2	4.8	7.4	5.0	7.7	4.9	8.0	4.7
	32.5	6.6	4.8	6.7	4.9	7.0	4.8	7.2	4.8	7.3	5.0	7.6	4.8	7.9	4.7
	35.0	6.5	4.8	6.7	4.9	7.0	4.8	7.1	4.8	7.2	4.9	7.5	4.8	7.8	4.7
	37.5	6.5	4.7	6.6	4.8	6.9	4.7	7.0	4.8	7.2	4.9	7.5	4.8	7.7	4.6
	40.0	6.4	4.7	6.5	4.8	6.8	4.7	7.0	4.7	7.1	4.9	7.4	4.8	7.7	4.6
	43.0	6.3	4.6	6.4	4.7	6.7	4.7	6.9	4.7	7.0	4.8	7.3	4.7	7.6	4.6

2-4.Heating Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PFFY-P-VLEM-A,VLRM-A

SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15.0	20.0	25.0	27.0
	˚CWB	SHC	SHC	SHC	SHC
20	-15.0	1.7	1.6	1.6	1.6
	-10.0	1.9	1.9	1.9	1.7
	-5.0	2.1	2.1	2.0	1.7
	0.0	2.4	2.4	2.0	1.7
	2.5	2.5	2.5	2.0	1.7
	6.0	2.5	2.5	2.0	1.7
	7.5	2.6	2.5	2.0	1.7
	10.0	2.8	2.5	2.0	1.7
	12.5	3.0	2.5	2.0	1.7
	15.5	3.0	2.5	2.0	1.7
25	-15.0	2.1	2.1	2.1	2.1
	-10.0	2.4	2.4	2.4	2.2
	-5.0	2.7	2.7	2.5	2.2
	0.0	3.1	3.0	2.5	2.2
	2.5	3.2	3.2	2.5	2.2
	6.0	3.2	3.2	2.5	2.2
	7.5	3.4	3.2	2.5	2.2
	10.0	3.6	3.2	2.5	2.2
	12.5	3.8	3.2	2.5	2.2
	15.5	3.9	3.2	2.5	2.2
32	-15.0	2.7	2.6	2.6	2.6
	-10.0	3.1	3.0	3.0	2.8
	-5.0	3.4	3.4	3.1	2.8
	0.0	3.8	3.8	3.1	2.8
	2.5	4.0	4.0	3.1	2.8
	6.0	4.0	4.0	3.1	2.8
	7.5	4.2	4.0	3.1	2.8
	10.0	4.5	4.0	3.1	2.8
	12.5	4.8	4.0	3.1	2.8
	15.5	4.8	4.0	3.1	2.8

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15.0	20.0	25.0	27.0
	˚CWB	SHC	SHC	SHC	SHC
40	-15.0	3.3	3.3	3.3	3.3
	-10.0	3.8	3.8	3.7	3.5
	-5.0	4.3	4.2	3.9	3.5
	0.0	4.8	4.7	3.9	3.5
	2.5	5.0	5.0	3.9	3.5
	6.0	5.1	5.0	3.9	3.5
	7.5	5.3	5.0	3.9	3.5
	10.0	5.6	5.0	3.9	3.5
	12.5	6.0	5.0	3.9	3.5
	15.5	6.1	5.0	3.9	3.5
50	-15.0	4.2	4.2	4.1	4.1
	-10.0	4.8	4.8	4.7	4.3
	-5.0	5.4	5.3	4.9	4.3
	0.0	6.0	5.9	4.9	4.3
	2.5	6.3	6.2	4.9	4.3
	6.0	6.4	6.3	4.9	4.3
	7.5	6.6	6.3	4.9	4.3
	10.0	7.1	6.3	4.9	4.3
	12.5	7.5	6.3	4.9	4.3
	15.5	7.6	6.3	4.9	4.3
63	-15.0	5.4	5.3	5.2	5.2
	-10.0	6.1	6.0	6.0	5.5
	-5.0	6.9	6.8	6.2	5.5
	0.0	7.6	7.5	6.2	5.5
	2.5	8.0	7.9	6.2	5.5
	6.0	8.1	8.0	6.2	5.5
	7.5	8.4	8.0	6.2	5.5
	10.0	9.0	8.0	6.2	5.5
	12.5	9.6	8.0	6.2	5.5
	15.5	9.7	8.0	6.2	5.5

2-5.Cooling capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PFFY-P-VLEM-A,VLRM-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	20.0	1813	1620	1901	1696	2049	1692	2157	1751	2192	1814	2320	1790	2459	1765
	22.5	1813	1620	1894	1693	2031	1685	2131	1741	2164	1804	2290	1780	2424	1754
	25.0	1799	1614	1876	1685	2008	1675	2105	1731	2137	1793	2259	1769	2389	1743
	27.5	1784	1608	1857	1677	1985	1666	2079	1721	2110	1783	2229	1758	2354	1732
	30.0	1770	1601	1839	1669	1962	1657	2052	1711	2083	1773	2198	1748	2319	1720
	32.5	1755	1595	1821	1661	1939	1648	2026	1701	2055	1763	2167	1737	2285	1709
	35.0	1741	1588	1802	1653	1916	1638	2000	1691	2028	1752	2137	1726	2250	1698
	37.5	1726	1582	1784	1645	1893	1629	1974	1681	2001	1742	2106	1716	2215	1687
	40.0	1712	1575	1766	1637	1870	1620	1948	1671	1974	1732	2076	1705	2180	1676
	43.0	1695	1568	1744	1628	1843	1609	1916	1659	1941	1720	2039	1693	2139	1663
25	20.0	2266	1829	2377	1908	2561	1906	2697	1965	2740	2028	2900	1999	3073	1970
	22.5	2266	1829	2367	1904	2539	1896	2664	1952	2705	2014	2862	1985	3030	1955
	25.0	2248	1820	2345	1893	2510	1884	2631	1938	2671	2000	2824	1971	2986	1940
	27.5	2230	1812	2322	1883	2482	1872	2598	1925	2637	1987	2786	1957	2943	1925
	30.0	2212	1803	2299	1873	2453	1860	2566	1912	2603	1973	2748	1943	2899	1911
	32.5	2194	1795	2276	1862	2424	1848	2533	1899	2569	1960	2709	1929	2856	1896
	35.0	2176	1787	2253	1852	2395	1835	2500	1886	2535	1947	2671	1916	2812	1881
	37.5	2158	1778	2230	1842	2367	1823	2467	1873	2501	1933	2633	1902	2769	1867
	40.0	2140	1770	2207	1831	2338	1811	2434	1860	2467	1920	2595	1888	2725	1853
	43.0	2118	1760	2180	1819	2304	1797	2395	1844	2426	1904	2549	1871	2673	1835
32	20.0	2855	2088	2995	2171	3227	2173	3398	2230	3452	2290	3654	2257	3872	2221
	22.5	2855	2088	2983	2166	3199	2160	3357	2212	3409	2271	3606	2238	3817	2201
	25.0	2833	2077	2954	2151	3163	2143	3315	2194	3366	2253	3558	2218	3763	2181
	27.5	2810	2065	2925	2137	3127	2127	3274	2176	3323	2235	3510	2199	3708	2160
	30.0	2787	2054	2896	2123	3091	2110	3233	2158	3280	2216	3462	2180	3653	2140
	32.5	2765	2043	2868	2109	3055	2094	3191	2140	3237	2198	3414	2161	3598	2120
	35.0	2742	2031	2839	2095	3018	2077	3150	2122	3194	2180	3366	2142	3544	2101
	37.5	2719	2020	2810	2081	2982	2061	3109	2104	3151	2162	3318	2123	3489	2081
	40.0	2696	2008	2781	2067	2946	2044	3067	2087	3109	2143	3270	2105	3434	2061
	43.0	2669	1995	2746	2050	2902	2025	3018	2066	3057	2122	3212	2082	3368	2038
40	20.0	3625	2651	3803	2756	4098	2759	4315	2831	4383	2907	4640	2865	4917	2820
	22.5	3625	2651	3788	2749	4063	2742	4262	2808	4329	2884	4579	2840	4848	2794
	25.0	3597	2636	3751	2731	4017	2721	4210	2785	4274	2860	4518	2816	4778	2768
	27.5	3568	2622	3715	2713	3971	2700	4157	2762	4220	2837	4457	2792	4708	2742
	30.0	3539	2607	3678	2695	3925	2679	4105	2739	4165	2813	4396	2767	4639	2717
	32.5	3511	2593	3641	2677	3879	2658	4052	2717	4111	2790	4335	2743	4569	2692
	35.0	3482	2578	3605	2660	3833	2637	4000	2694	4056	2767	4274	2719	4500	2666
	37.5	3453	2564	3568	2642	3787	2616	3948	2671	4002	2744	4213	2695	4430	2641
	40.0	3424	2550	3531	2624	3741	2595	3895	2649	3947	2721	4152	2672	4361	2616
	43.0	3389	2532	3487	2603	3686	2570	3832	2622	3882	2694	4078	2643	4277	2587
50	20.0	4532	3358	4753	3494	5123	3495	5393	3590	5479	3689	5800	3635	6146	3578
	22.5	4532	3358	4735	3485	5078	3475	5328	3561	5411	3660	5724	3605	6059	3546
	25.0	4496	3340	4689	3463	5021	3449	5262	3533	5343	3631	5648	3575	5972	3515
	27.5	4460	3322	4643	3440	4963	3423	5197	3505	5275	3602	5571	3545	5886	3483
	30.0	4424	3304	4597	3418	4906	3397	5131	3476	5207	3573	5495	3515	5799	3452
	32.5	4388	3287	4552	3396	4848	3371	5066	3448	5139	3544	5419	3485	5712	3421
	35.0	4352	3269	4506	3374	4791	3345	5000	3420	5070	3516	5342	3456	5625	3390
	37.5	4316	3251	4460	3352	4734	3319	4934	3393	5002	3487	5266	3426	5538	3359
	40.0	4280	3233	4414	3330	4676	3294	4869	3365	4934	3459	5190	3397	5451	3328
	43.0	4237	3212	4359	3304	4607	3263	4790	3332	4852	3425	5098	3362	5347	3291
63	20.0	5710	4139	5989	4302	6455	4306	6796	4418	6904	4534	7309	4468	7744	4396
	22.5	5710	4139	5966	4291	6399	4280	6713	4381	6818	4497	7212	4429	7635	4355
	25.0	5665	4116	5908	4262	6326	4246	6630	4345	6732	4459	7116	4390	7525	4314
	27.5	5620	4093	5851	4234	6254	4213	6548	4308	6646	4422	7020	4351	7416	4274
	30.0	5574	4070	5793	4205	6181	4179	6465	4272	6560	4385	6924	4313	7306	4233
	32.5	5529	4047	5735	4177	6109	4146	6383	4236	6475	4348	6828	4274	7197	4193
	35.0	5484	4024	5677	4148	6037	4113	6300	4200	6389	4311	6731	4236	7087	4153
	37.5	5438	4001	5620	4120	5964	4080	6217	4164	6303	4275	6635	4198	6978	4113
	40.0	5393	3978	5562	4092	5892	4047	6135	4128	6217	4238	6539	4160	6868	4073
	43.0	5338	3951	5493	4058	5805	4007	6036	4086	6114	4195	6424	4115	6737	4026

2-6.Heating capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PFFY-P-VLEM-A,VLRM-A

SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚CWB	SHC	SHC	SHC	SHC
20	-15.0	1555	1532	1509	1500
	-10.0	1774	1751	1728	1601
	-5.0	1994	1970	1809	1601
	0.0	2213	2190	1809	1601
	2.5	2322	2250	1809	1601
	6.0	2343	2250	1809	1601
	7.5	2441	2250	1809	1601
	10.0	2605	2250	1809	1601
	12.5	2769	2250	1809	1601
	15.5	2807	2250	1809	1601
25	-15.0	1935	1907	1878	1866
	-10.0	2208	2179	2151	1992
	-5.0	2481	2452	2252	1992
	0.0	2754	2725	2252	1992
	2.5	2890	2800	2252	1992
	6.0	2915	2800	2252	1992
	7.5	3038	2800	2252	1992
	10.0	3242	2800	2252	1992
	12.5	3446	2800	2252	1992
	15.5	3493	2800	2252	1992
32	-15.0	2454	2417	2381	2366
	-10.0	2800	2763	2727	2525
	-5.0	3146	3109	2855	2525
	0.0	3491	3455	2855	2525
	2.5	3664	3550	2855	2525
	6.0	3696	3550	2855	2525
	7.5	3852	3550	2855	2525
	10.0	4111	3550	2855	2525
	12.5	4370	3550	2855	2525
	15.5	4428	3550	2855	2525

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚CWB	SHC	SHC	SHC	SHC
40	-15.0	3111	3064	3018	2999
	-10.0	3549	3503	3456	3201
	-5.0	3987	3941	3619	3201
	0.0	4426	4379	3619	3201
	2.5	4645	4500	3619	3201
	6.0	4686	4500	3619	3201
	7.5	4883	4500	3619	3201
	10.0	5211	4500	3619	3201
	12.5	5539	4500	3619	3201
	15.5	5613	4500	3619	3201
50	-15.0	3871	3813	3755	3732
	-10.0	4416	4359	4301	3984
	-5.0	4962	4904	4503	3984
	0.0	5508	5450	4503	3984
	2.5	5780	5600	4503	3984
	6.0	5831	5600	4503	3984
	7.5	6076	5600	4503	3984
	10.0	6484	5600	4503	3984
	12.5	6893	5600	4503	3984
	15.5	6986	5600	4503	3984
63	-15.0	4908	4835	4761	4732
	-10.0	5599	5526	5453	5051
	-5.0	6291	6218	5709	5051
	0.0	6983	6910	5709	5051
	2.5	7329	7100	5709	5051
	6.0	7393	7100	5709	5051
	7.5	7704	7100	5709	5051
	10.0	8221	7100	5709	5051
	12.5	8739	7100	5709	5051
	15.5	8857	7100	5709	5051

2-7.Cooling Capacity (In combination with PQRY-P200·250YMF-B)

PFFY-P-VLEM-A,VLRM-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Water temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚C	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	10	1914	1666	1980	1730	2105	1715	2200	1768	2229	1828	2354	1802	2486	1774
	20	1844	1635	1908	1699	2029	1684	2120	1737	2148	1797	2268	1772	2396	1745
	30	1740	1588	1800	1652	1914	1637	2000	1691	2026	1752	2140	1727	2260	1701
	40	1514	1488	1566	1552	1665	1539	1740	1593	1763	1654	1862	1633	1966	1609
	45	1427	1451	1476	1514	1569	1501	1640	1556	1661	1618	1755	1597	1853	1574
25	10	2393	1889	2475	1953	2632	1936	2750	1987	2786	2046	2943	2015	3108	1981
	20	2306	1847	2385	1912	2536	1895	2650	1946	2684	2006	2836	1976	2995	1943
	30	2175	1786	2250	1851	2393	1834	2500	1886	2533	1946	2675	1917	2825	1886
	40	1892	1656	1958	1720	2081	1705	2175	1758	2203	1818	2327	1793	2458	1765
	45	1784	1607	1845	1671	1962	1657	2050	1710	2077	1771	2194	1746	2317	1719
32	10	3015	2170	3119	2233	3316	2214	3465	2260	3510	2315	3708	2278	3915	2237
	20	2905	2113	3005	2177	3195	2158	3339	2204	3382	2260	3573	2224	3773	2184
	30	2741	2030	2835	2093	3015	2075	3150	2122	3191	2178	3371	2144	3560	2106
	40	2384	1856	2466	1918	2623	1901	2741	1950	2776	2006	2932	1976	3097	1943
	45	2247	1791	2325	1853	2472	1836	2583	1885	2617	1942	2764	1913	2919	1881
40	10	3828	2754	3960	2835	4211	2811	4400	2869	4457	2939	4708	2892	4972	2840
	20	3689	2683	3816	2763	4058	2740	4240	2798	4295	2869	4537	2823	4791	2773
	30	3480	2578	3600	2657	3828	2635	4000	2694	4052	2765	4280	2722	4520	2674
	40	3028	2356	3132	2435	3330	2414	3480	2475	3525	2547	3724	2508	3932	2466
	45	2854	2273	2952	2352	3139	2331	3280	2393	3323	2465	3510	2428	3706	2388
50	10	4785	3486	4950	3590	5264	3560	5500	3636	5572	3728	5885	3669	6215	3604
	20	4611	3398	4770	3502	5072	3472	5300	3549	5369	3642	5671	3584	5989	3521
	30	4350	3268	4500	3371	4785	3342	5000	3420	5065	3514	5350	3459	5650	3399
	40	3785	2994	3915	3096	4163	3069	4350	3150	4407	3244	4655	3195	4916	3142
	45	3567	2891	3690	2993	3924	2967	4100	3048	4153	3143	4387	3097	4633	3046
63	10	6029	4303	6237	4427	6632	4390	6930	4478	7020	4586	7415	4511	7831	4429
	20	5810	4190	6010	4313	6391	4277	6678	4366	6765	4474	7145	4402	7546	4322
	30	5481	4022	5670	4145	6029	4109	6300	4200	6382	4308	6741	4240	7119	4164
	40	4768	3670	4933	3791	5245	3758	5481	3851	5552	3961	5865	3900	6194	3834
	45	4494	3538	4649	3659	4944	3627	5166	3721	5233	3832	5528	3774	5838	3710

2-8.Heatling Capacity (In combination with PQRY-P200·250YMF-B)

PFFY-P-VLEM-A,VLRM-A

Unit size	Water temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚C	SHC	SHC	SHC	SHC
20	10	1951	1913	1549	1377
	20	2295	2250	1823	1620
	30	2295	2250	1823	1620
	40	2387	2340	1895	1685
	45	2616	2565	2078	1847
25	10	2428	2380	1928	1714
	20	2856	2800	2268	2016
	30	2856	2800	2268	2016
	40	2970	2912	2359	2097
	45	3256	3192	2586	2298
32	10	3078	3018	2444	2173
	20	3621	3550	2876	2556
	30	3621	3550	2876	2556
	40	3766	3692	2991	2658
	45	4128	4047	3278	2914

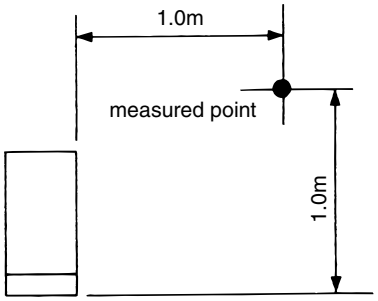
SHC:Sensible heat Capacity(kcal/h)

Unit size	Water temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚C	SHC	SHC	SHC	SHC
40	10	3902	3825	3098	2754
	20	4590	4500	3645	3240
	30	4590	4500	3645	3240
	40	4774	4680	3791	3370
	45	5233	5130	4155	3694
50	10	4855	4760	3856	3427
	20	5712	5600	4536	4032
	30	5712	5600	4536	4032
	40	5940	5824	4717	4193
	45	6512	6384	5171	4596
63	10	6156	6035	4888	4345
	20	7242	7100	5751	5112
	30	7242	7100	5751	5112
	40	7532	7384	5981	5316
	45	8256	8094	6556	5828

3. Sound levels

3-1. Noise level

Floor standing

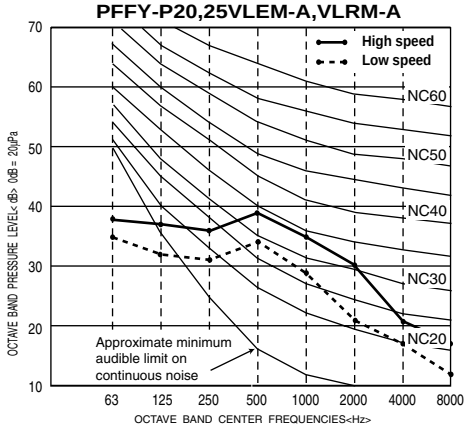


Noise level at anechoic room (Low-High) Unit : dB(A)

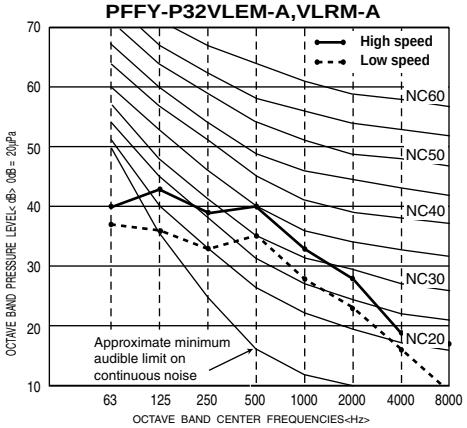
Model	Noise level (A weighted)
PFFY-P20VLEM-A PFFY-P20VLRM-A PFFY-P25VLEM-A PFFY-P25VLRM-A	34-40
PFFY-P32VLEM-A PFFY-P32VLRM-A	35-40
PFFY-P40VLEM-A PFFY-P40VLRM-A PFFY-P50VLEM-A PFFY-P50VLRM-A	38-43
PFFY-P63VLEM-A PFFY-P63VLRM-A	40-46

3-2. NC curves

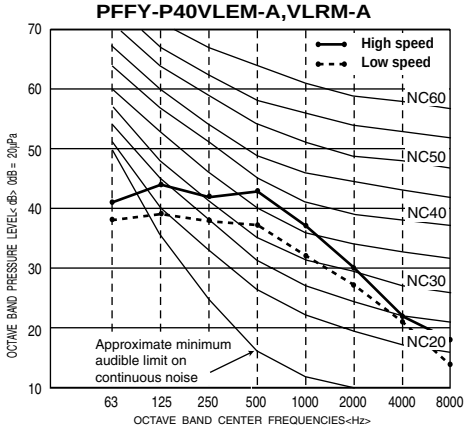
PFFY-P20,25VLEM-A,VLRM-A



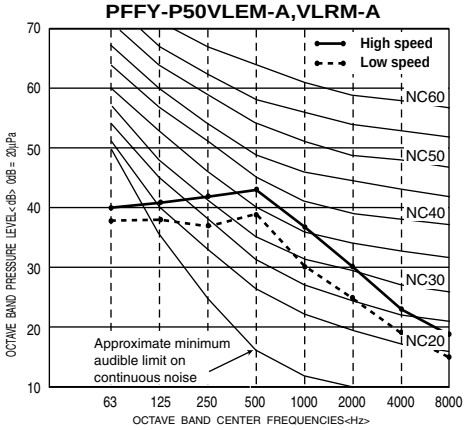
PFFY-P32VLEM-A,VLRM-A



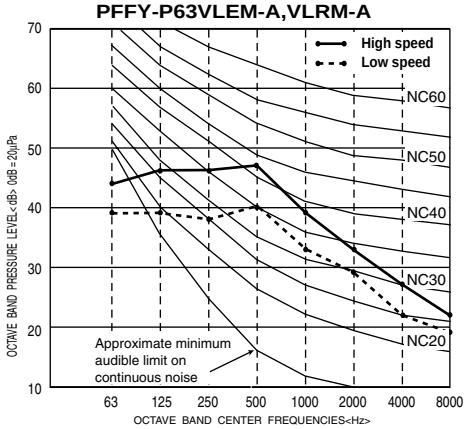
PFFY-P40VLEM-A,VLRM-A



PFFY-P50VLEM-A,VLRM-A



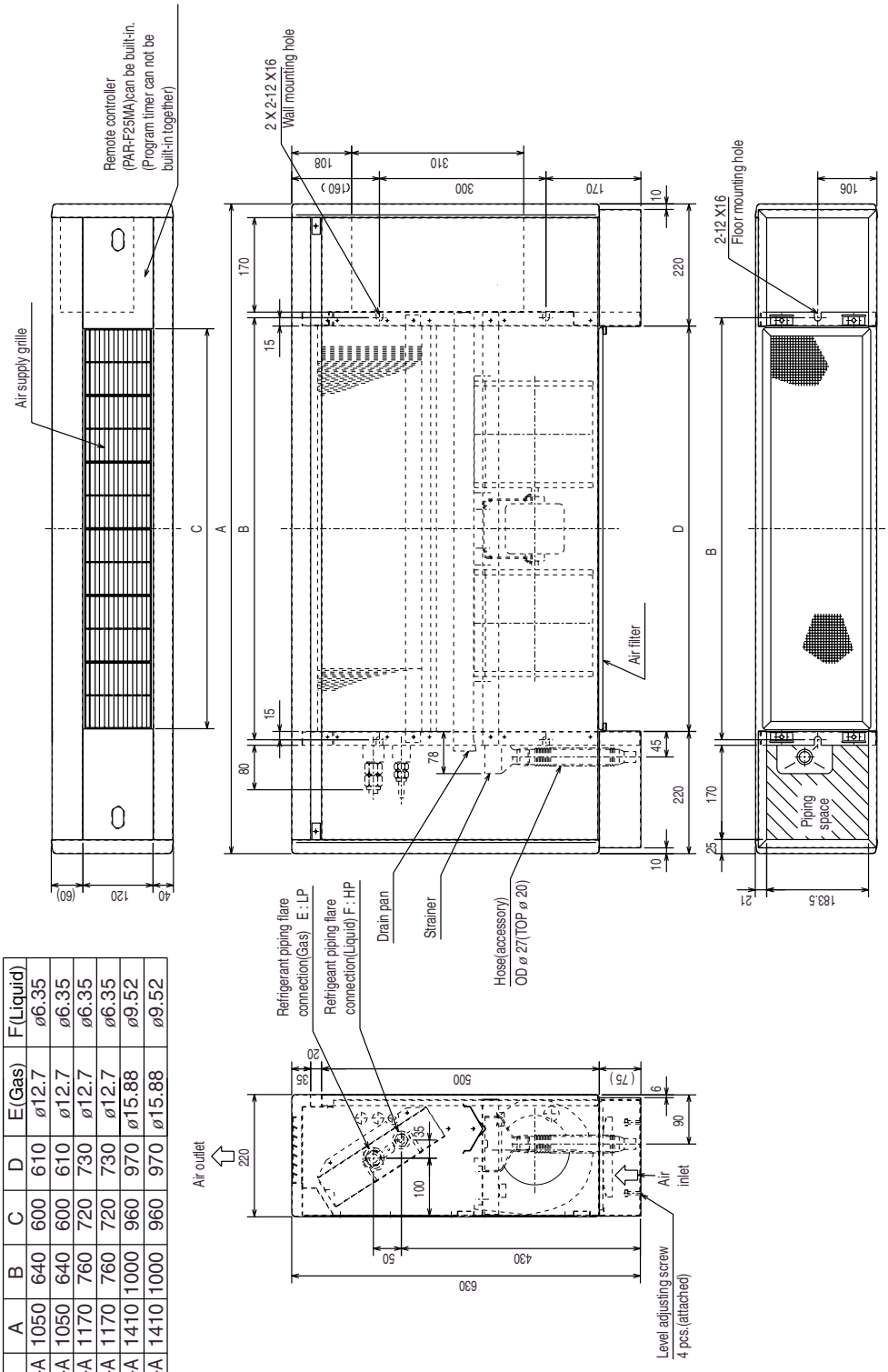
PFFY-P63VLEM-A,VLRM-A



4. External Dimensions

PFFY-P20,25,32,40,50, 63VLEM-A

Unit : mm

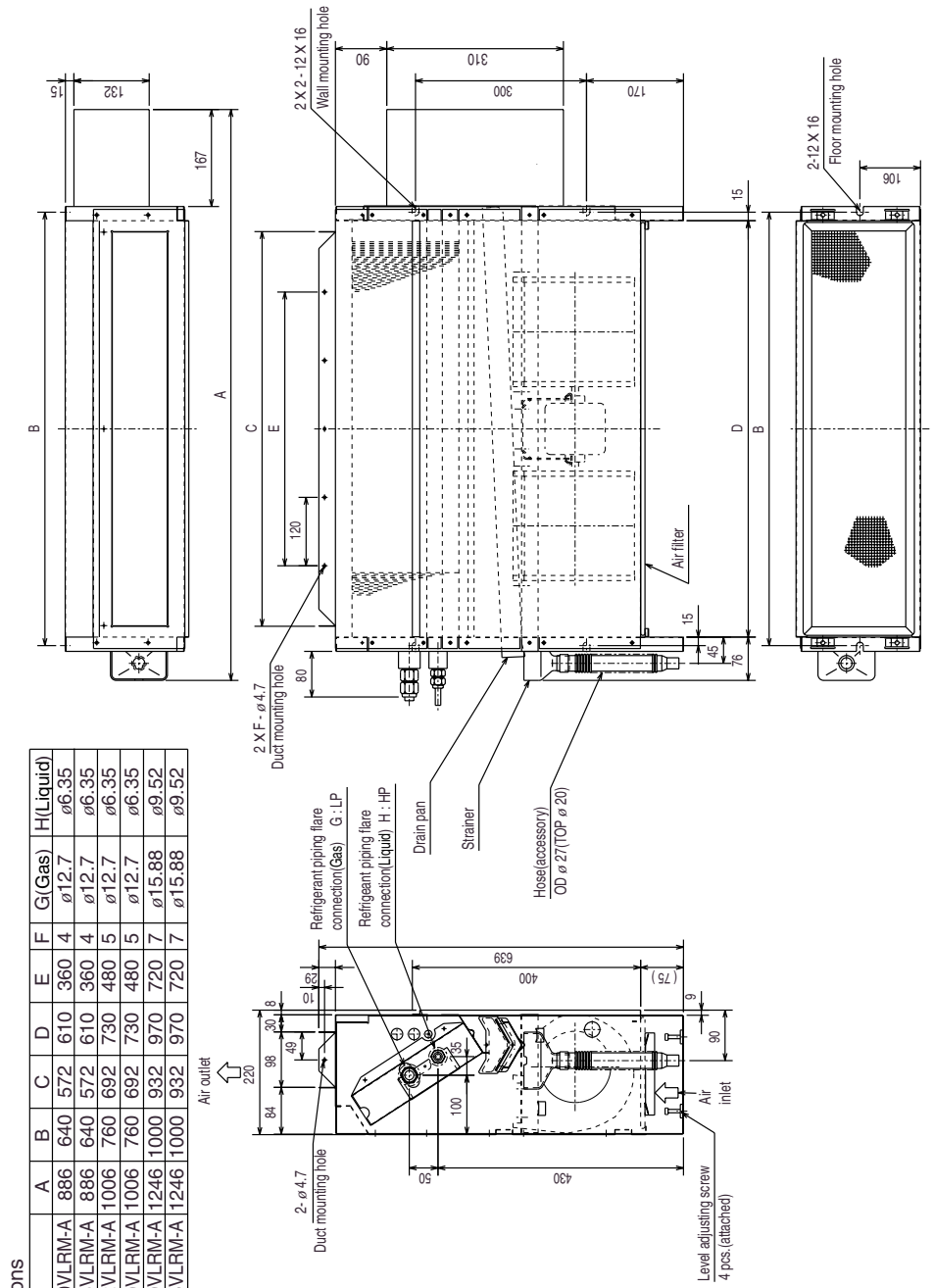

Remote controller (PAR-F25MA)(can be built-in. (Program timer can not be built-in together)
2-X 2-12 X16 Wall mounting hole
2-12 X16 Floor mounting hole
Air supply grille
Air filter
Piping space
Refrigerant piping flare connection(Gas) E : LP
Refrigeant piping flare connection(Liquid) F : HP
Drain pan
Strainer
Hose(accessory) OD ø 27(TOP ø 20)
Air outlet
Air inlet
Level adjusting screw 4 pcs.(attached)

Dimensions

Model	A	B	C	D	E(Gas)	F(Liquid)
PFFY -P20VLEM-A	1050	640	600	610	ø12.7	ø6.35
PFFY -P25VLEM-A	1050	640	600	610	ø12.7	ø6.35
PFFY -P32VLEM-A	1170	760	720	730	ø12.7	ø6.35
PFFY -P40VLEM-A	1170	760	720	730	ø12.7	ø6.35
PFFY -P50VLEM-A	1410	1000	960	970	ø15.88	ø9.52
PFFY -P63VLEM-A	1410	1000	960	970	ø15.88	ø9.52

**PFFY-P20,25,32,40,50,
63VLRM-A**

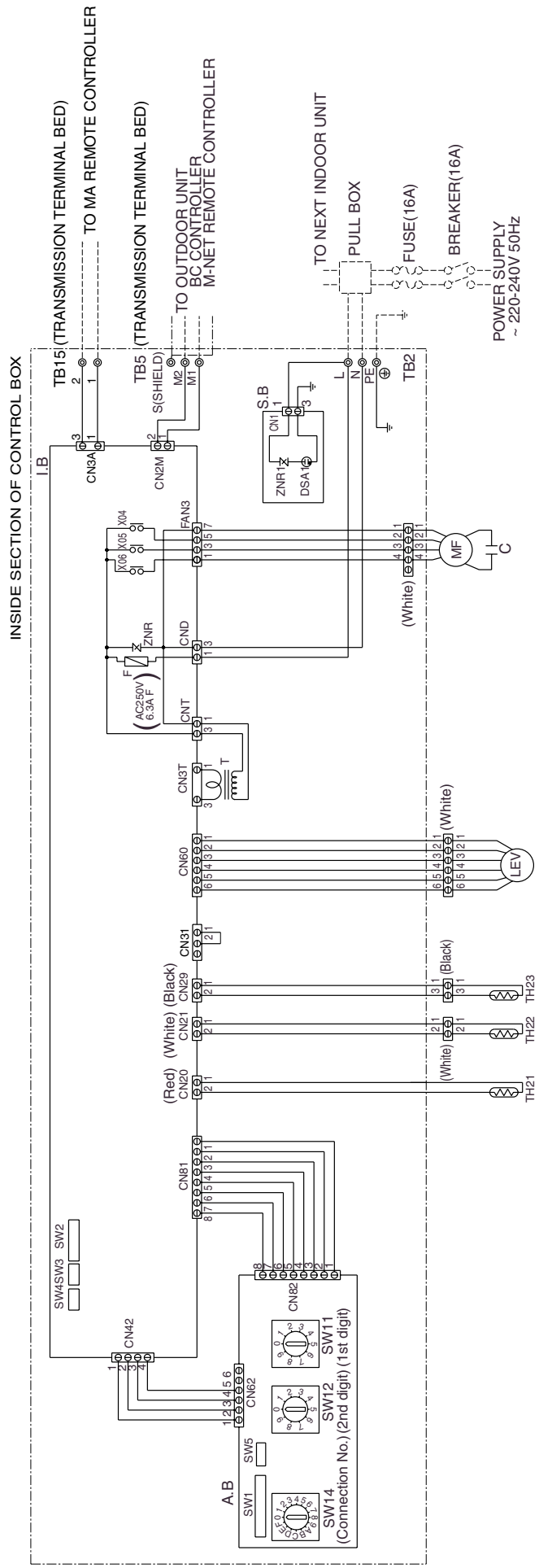
Unit : mm



Dimensions

Model	A	B	C	D	E	F	G(Gas)	H(Liquid)
PFFY-P20VLRM-A	886	640	572	610	360	4	ø12.7	ø6.35
PFFY-P25VLRM-A	886	640	572	610	360	4	ø12.7	ø6.35
PFFY-P32VLRM-A	1006	760	692	730	480	5	ø12.7	ø6.35
PFFY-P40VLRM-A	1006	760	692	730	480	5	ø12.7	ø6.35
PFFY-P50VLRM-A	1246	1000	932	970	720	7	ø15.88	ø9.52
PFFY-P63VLRM-A	1246	1000	932	970	720	7	ø15.88	ø9.52

5. Electrical Wiring Diagram



SYMBOL EXPLANATION

SYMBOL	NAME	SYMBOL	NAME
MF	Fan motor	TH22	Thermistor (piping temp.detection/liquid)
C	*Capacitor (for MF)	TH23	Thermistor (piping temp.detection/gas)
I.B	Indoor controller board	SW11(A.B)	Switch (1st digit address set)
A.B	Address board	SW12(A.B)	Switch (2nd digit address set)
TB2	Power source terminal bed	SW14(A.B)	Switch (connection No.set)
TB5	Transmission terminal bed	SW1(A.B)	Switch(for mode selection)
TB15	Transmission terminal bed	SW2(I.B)	Switch(for capacity code)
F	Fuse AC250V 6.3A F	SW3(I.B)	Switch(for mode selection)
T	Transformer	SW4(I.B)	Switch(for model selection)
LEV	Electronic linear expan. valve	SW5(A.B)	Switch(for voltage selection)
S.B	Surge absorber board	X04~06	Aux.relay
TH21	Thermistor (inlet temp.detection)		

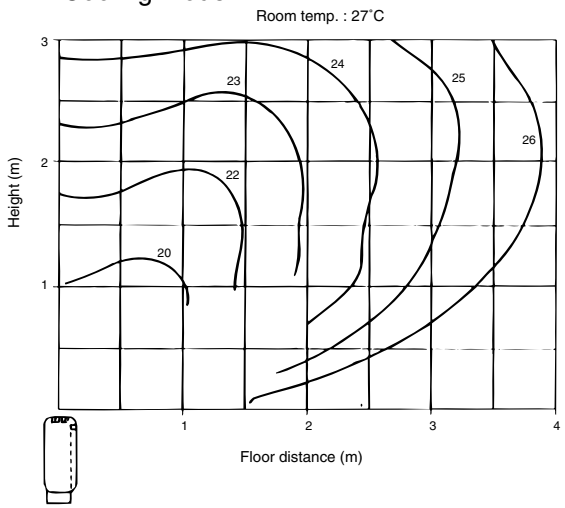
*Capacitor
MODELS 20/25/32/40 1.5μF
MODEL 50 2.0μF
MODEL 63 2.5μF

PFFY-P-VLEM-A/VLRM-A

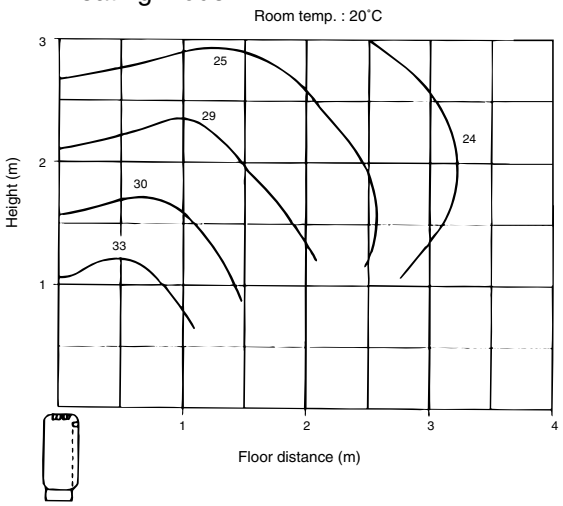
6. Temperature/Airflow distribution

● Temperature distribution

<Cooling mode>



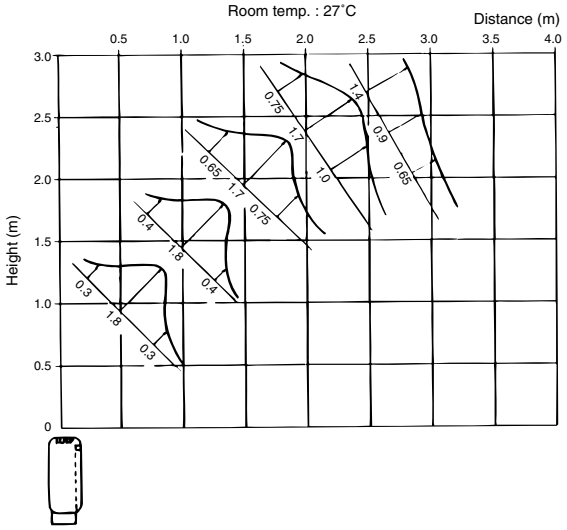
<Heating mode>



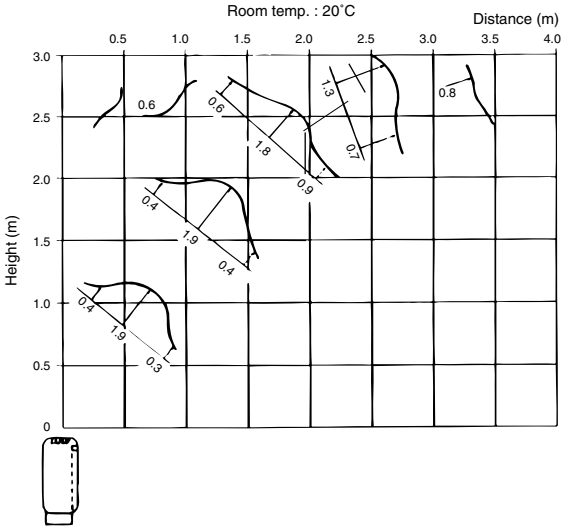
PFFY-P-VLEM-A/VLRM-A

● Airlow distribution

<Cooling mode>



<Heating mode>



Cassette ceiling (1-way flow) PMFY-P-VBM-A

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1. Specifications

				PMFY-P20VBM-A	PMFY-P25VBM-A	PMFY-P32VBM-A	PMFY-P40VBM-A
Power source				~220-240V 50Hz / ~ 200V 60Hz			
Cooling capacity	※1		kW	2.2	2.8	3.6	4.5
	※2		kcal/h	2,000	2,500	3,150	4,000
Heating capacity	※1		kW	2.5	3.2	4.0	5.0
Power consumption		Cooling	kW	0.042	0.044		0.054
		Heating	kW	0.042	0.044		0.054
Current		Cooling	A	0.20	0.21		0.26
		Heating	A	0.20	0.21		0.26
External finish				Panel : 0.98Y8.99/0.63			
Dimension ※3		Height	mm	230 (30)			
		Width	mm	854 (1000)			
		Depth	mm	395 (470)			
Net weight ※3			kg	14 (3.0)			
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)			
Fan	Type			Line flow fan × 1			
	Airflow rate ※3 (Low-Mid2-Mid1-High)		m^3/min	6.5-7.2-8.0-8.7	7.3-8.0-8.6-9.3		7.7-8.7-9.7-10.7
	External static pressure		Pa	0			
Motor	Type			Single phase induction motor			
	Output		kW	0.028			
Air filter				PP Honeycomb fabric			
Refrigerant pipe dimension		Gas (Brazing)	mm	ø 12.7			
		Liquid (Brazing)	mm	ø 6.35			
Drain pipe dimension				VP-20			
Noise level (Low-Mid2-Mid1-High)			dB(A)	27-30-33-35	32-34-36-37		33-35-37-39

Note: ※1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19˚CWB,Outdoor 35˚CDB
Heating : Indoor 20˚CDB,Outdoor 7˚CDB/6˚CWB

※2 Cooling capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19.5˚CWB,Outdoor 35˚CDB (WR2: water 30˚C)

※3 External dimension / net weight are shown in (panel), and airflow rate/noise level are in (low-middle2-middle1-high).

2. Capacity tables

2-1.Cooling Capacity (In combination with PUMY-125YM(A))

PMFY-P-VBM-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.							
		23˚CDB 16˚CWB		25˚CDB 18˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20 (2.2)	20.0	2.2	1.9	2.3	1.9	2.4	1.9	2.6	2.0
	22.5	2.1	1.8	2.3	1.9	2.4	1.9	2.6	2.0
	25.0	2.1	1.8	2.3	1.9	2.4	1.9	2.5	2.0
	27.5	2.1	1.8	2.2	1.9	2.4	1.9	2.5	2.0
	30.0	2.1	1.8	2.2	1.9	2.3	1.9	2.5	2.0
	32.5	2.0	1.8	2.2	1.9	2.3	1.9	2.5	1.9
	35.0	2.0	1.8	2.1	1.9	2.3	1.9	2.4	1.9
	37.5	2.0	1.8	2.1	1.9	2.2	1.8	2.4	1.9
	40.0	2.0	1.8	2.1	1.8	2.2	1.8	2.4	1.9
	46.0	1.9	1.7	2.0	1.8	2.1	1.8	2.3	1.9
25 (2.8)	20.0	2.8	2.3	2.9	2.4	3.1	2.4	3.3	2.4
	22.5	2.7	2.3	2.9	2.4	3.1	2.3	3.2	2.4
	25.0	2.7	2.2	2.9	2.4	3.1	2.3	3.2	2.4
	27.5	2.7	2.2	2.8	2.3	3.0	2.3	3.2	2.4
	30.0	2.6	2.2	2.8	2.3	3.0	2.3	3.2	2.4
	32.5	2.6	2.2	2.8	2.3	2.9	2.3	3.1	2.4
	35.0	2.6	2.2	2.7	2.3	2.9	2.3	3.1	2.4
	37.5	2.5	2.2	2.7	2.3	2.9	2.3	3.0	2.3
	40.0	2.5	2.1	2.7	2.3	2.8	2.2	3.0	2.3
	46.0	2.4	2.1	2.6	2.2	2.7	2.2	2.9	2.3
32 (3.6)	20.0	3.6	2.6	3.7	2.7	4.0	2.7	4.2	2.8
	22.5	3.5	2.6	3.7	2.7	4.0	2.7	4.2	2.8
	25.0	3.5	2.6	3.7	2.7	3.9	2.7	4.1	2.8
	27.5	3.4	2.6	3.6	2.7	3.9	2.7	4.1	2.8
	30.0	3.4	2.5	3.6	2.7	3.8	2.6	4.1	2.7
	32.5	3.3	2.5	3.6	2.7	3.8	2.6	4.0	2.7
	35.0	3.3	2.5	3.5	2.6	3.7	2.6	4.0	2.7
	37.5	3.2	2.5	3.5	2.6	3.7	2.6	3.9	2.7
	40.0	3.2	2.5	3.4	2.6	3.6	2.6	3.9	2.7
	46.0	3.1	2.4	3.3	2.5	3.5	2.5	3.7	2.6
40 (4.5)	20.0	4.5	3.2	4.7	3.4	5.0	3.4	5.3	3.4
	22.5	4.4	3.2	4.6	3.3	5.0	3.3	5.2	3.4
	25.0	4.3	3.2	4.6	3.3	4.9	3.3	5.2	3.4
	27.5	4.3	3.2	4.6	3.3	4.9	3.3	5.1	3.4
	30.0	4.2	3.1	4.5	3.3	4.8	3.2	5.1	3.4
	32.5	4.2	3.1	4.4	3.3	4.7	3.2	5.0	3.3
	35.0	4.1	3.1	4.4	3.2	4.7	3.2	5.0	3.3
	37.5	4.1	3.0	4.3	3.2	4.6	3.2	4.9	3.3
	40.0	4.0	3.0	4.3	3.2	4.5	3.1	4.8	3.2
	46.0	3.8	2.9	4.1	3.1	4.3	3.0	4.6	3.2

2-2.Heating Capacity (In combination with PUMY-125YM(A))

PMFY-P-VBM-A

SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB		
		15.0	20.0	25.0
	˚CWB	SHC	SHC	SHC
20	-12.0	1.6	1.6	1.5
	-10.0	1.7	1.6	1.6
	-5.0	1.9	1.9	1.9
	0.0	2.2	2.1	2.1
	2.5	2.3	2.3	2.3
	6.0	2.5	2.5	2.5
	7.5	2.6	2.6	2.5
	10.0	2.8	2.7	2.5
	12.5	2.9	2.8	2.5
	15.5	3.1	2.8	2.5
25	-12.0	2.0	2.0	2.0
	-10.0	2.1	2.1	2.1
	-5.0	2.4	2.4	2.4
	0.0	2.8	2.8	2.7
	2.5	3.0	2.9	2.9
	6.0	3.2	3.2	3.2
	7.5	3.3	3.3	3.2
	10.0	3.5	3.5	3.2
	12.5	3.7	3.5	3.2
	15.5	3.9	3.5	3.2

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB		
		15.0	20.0	25.0
	˚CWB	SHC	SHC	SHC
32	-12.0	2.5	2.5	2.5
	-10.0	2.7	2.6	2.6
	-5.0	3.1	3.0	3.0
	0.0	3.5	3.4	3.4
	2.5	3.7	3.7	3.6
	6.0	4.0	4.0	3.9
	7.5	4.2	4.1	4.0
	10.0	4.4	4.4	4.0
	12.5	4.7	4.4	4.0
	15.5	4.9	4.4	4.0
40	-12.0	3.2	3.1	3.1
	-10.0	3.4	3.3	3.2
	-5.0	3.8	3.8	3.7
	0.0	4.3	4.3	4.2
	2.5	4.6	4.6	4.5
	6.0	5.0	5.0	4.9
	7.5	5.2	5.2	5.0
	10.0	5.5	5.5	5.0
	12.5	5.9	5.5	5.0
	15.5	6.2	5.5	5.0

2-3.Cooling Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PMFY-P-VBM-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	20.0	2.2	1.8	2.2	1.9	2.3	1.9	2.3	1.9	2.4	2.0	2.5	1.9	2.6	1.9
(2.2)	22.5	2.1	1.8	2.2	1.9	2.3	1.8	2.3	1.9	2.4	2.0	2.4	1.9	2.5	1.9
	25.0	2.1	1.8	2.2	1.9	2.2	1.8	2.3	1.9	2.3	1.9	2.4	1.9	2.5	1.9
	27.5	2.1	1.8	2.1	1.9	2.2	1.8	2.3	1.9	2.3	1.9	2.4	1.9	2.5	1.9
	30.0	2.1	1.8	2.1	1.9	2.2	1.8	2.2	1.9	2.3	1.9	2.4	1.9	2.5	1.8
	32.5	2.0	1.8	2.1	1.8	2.2	1.8	2.2	1.9	2.3	1.9	2.4	1.9	2.4	1.8
	35.0	2.0	1.8	2.1	1.8	2.2	1.8	2.2	1.8	2.2	1.9	2.3	1.9	2.4	1.8
	37.5	2.0	1.8	2.0	1.8	2.1	1.8	2.2	1.8	2.2	1.9	2.3	1.9	2.4	1.8
	40.0	2.0	1.8	2.0	1.8	2.1	1.8	2.2	1.8	2.2	1.9	2.3	1.9	2.4	1.8
	43.0	2.0	1.7	2.0	1.8	2.1	1.8	2.1	1.8	2.2	1.9	2.3	1.8	2.3	1.8
25	20.0	2.7	2.3	2.8	2.3	2.9	2.3	3.0	2.3	3.0	2.4	3.1	2.3	3.2	2.3
(2.8)	22.5	2.7	2.2	2.8	2.3	2.9	2.3	2.9	2.3	3.0	2.4	3.1	2.3	3.2	2.3
	25.0	2.7	2.2	2.7	2.3	2.9	2.3	2.9	2.3	3.0	2.4	3.1	2.3	3.2	2.3
	27.5	2.7	2.2	2.7	2.3	2.8	2.2	2.9	2.3	2.9	2.4	3.1	2.3	3.2	2.3
	30.0	2.6	2.2	2.7	2.3	2.8	2.2	2.9	2.3	2.9	2.4	3.0	2.3	3.1	2.2
	32.5	2.6	2.2	2.7	2.3	2.8	2.2	2.8	2.3	2.9	2.3	3.0	2.3	3.1	2.2
	35.0	2.6	2.2	2.6	2.3	2.7	2.2	2.8	2.2	2.9	2.3	3.0	2.3	3.1	2.2
	37.5	2.5	2.2	2.6	2.2	2.7	2.2	2.8	2.2	2.8	2.3	2.9	2.3	3.1	2.2
	40.0	2.5	2.2	2.6	2.2	2.7	2.2	2.7	2.2	2.8	2.3	2.9	2.3	3.0	2.2
	43.0	2.5	2.1	2.5	2.2	2.7	2.2	2.7	2.2	2.8	2.3	2.9	2.3	3.0	2.2
32	20.0	3.5	2.6	3.6	2.7	3.7	2.6	3.8	2.6	3.9	2.7	4.0	2.6	4.2	2.6
(3.6)	22.5	3.5	2.6	3.6	2.7	3.7	2.6	3.8	2.6	3.9	2.7	4.0	2.6	4.1	2.6
	25.0	3.5	2.6	3.5	2.6	3.7	2.6	3.7	2.6	3.8	2.7	4.0	2.6	4.1	2.5
	27.5	3.4	2.6	3.5	2.6	3.6	2.6	3.7	2.6	3.8	2.7	3.9	2.6	4.1	2.5
	30.0	3.4	2.5	3.5	2.6	3.6	2.6	3.7	2.6	3.7	2.7	3.9	2.6	4.0	2.5
	32.5	3.3	2.5	3.4	2.6	3.6	2.5	3.6	2.6	3.7	2.6	3.9	2.6	4.0	2.5
	35.0	3.3	2.5	3.4	2.6	3.5	2.5	3.6	2.5	3.7	2.6	3.8	2.6	4.0	2.5
	37.5	3.3	2.5	3.3	2.6	3.5	2.5	3.6	2.5	3.6	2.6	3.8	2.6	3.9	2.5
	40.0	3.2	2.5	3.3	2.5	3.5	2.5	3.5	2.5	3.6	2.6	3.7	2.5	3.9	2.5
	43.0	3.2	2.5	3.3	2.5	3.4	2.5	3.5	2.5	3.6	2.6	3.7	2.5	3.8	2.5
40	20.0	4.4	3.2	4.5	3.3	4.7	3.2	4.8	3.2	4.9	3.3	5.0	3.2	5.2	3.1
(4.5)	22.5	4.4	3.2	4.5	3.3	4.6	3.2	4.7	3.2	4.8	3.3	5.0	3.2	5.2	3.1
	25.0	4.3	3.2	4.4	3.2	4.6	3.2	4.7	3.2	4.8	3.3	5.0	3.2	5.1	3.1
	27.5	4.3	3.1	4.4	3.2	4.5	3.1	4.6	3.2	4.7	3.3	4.9	3.2	5.1	3.1
	30.0	4.2	3.1	4.3	3.2	4.5	3.1	4.6	3.1	4.7	3.2	4.9	3.2	5.0	3.1
	32.5	4.2	3.1	4.3	3.2	4.5	3.1	4.5	3.1	4.6	3.2	4.8	3.1	5.0	3.1
	35.0	4.1	3.1	4.2	3.1	4.4	3.1	4.5	3.1	4.6	3.2	4.8	3.1	5.0	3.0
	37.5	4.1	3.1	4.2	3.1	4.4	3.1	4.5	3.1	4.5	3.2	4.7	3.1	4.9	3.0
	40.0	4.1	3.0	4.1	3.1	4.3	3.0	4.4	3.1	4.5	3.2	4.7	3.1	4.9	3.0
	43.0	4.0	3.0	4.1	3.1	4.3	3.0	4.4	3.0	4.4	3.1	4.6	3.1	4.8	3.0

2-4.Heating Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PMFY-P-VBM-A

SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15.0	20.0	25.0	27.0
	˚CWB	SHC	SHC	SHC	SHC
20	-15.0	1.7	1.6	1.6	1.6
	-10.0	1.9	1.9	1.9	1.7
	-5.0	2.1	2.1	2.0	1.7
	0.0	2.4	2.4	2.0	1.7
	2.5	2.5	2.5	2.0	1.7
	6.0	2.5	2.5	2.0	1.7
	7.5	2.6	2.5	2.0	1.7
	10.0	2.8	2.5	2.0	1.7
	12.5	3.0	2.5	2.0	1.7
	15.5	3.0	2.5	2.0	1.7
25	-15.0	2.1	2.1	2.1	2.1
	-10.0	2.4	2.4	2.4	2.2
	-5.0	2.7	2.7	2.5	2.2
	0.0	3.1	3.0	2.5	2.2
	2.5	3.2	3.2	2.5	2.2
	6.0	3.2	3.2	2.5	2.2
	7.5	3.4	3.2	2.5	2.2
	10.0	3.6	3.2	2.5	2.2
	12.5	3.8	3.2	2.5	2.2
	15.5	3.9	3.2	2.5	2.2

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15.0	20.0	25.0	27.0
	˚CWB	SHC	SHC	SHC	SHC
32	-15.0	2.7	2.6	2.6	2.6
	-10.0	3.1	3.0	3.0	2.8
	-5.0	3.4	3.4	3.1	2.8
	0.0	3.8	3.8	3.1	2.8
	2.5	4.0	4.0	3.1	2.8
	6.0	4.0	4.0	3.1	2.8
	7.5	4.2	4.0	3.1	2.8
	10.0	4.5	4.0	3.1	2.8
	12.5	4.8	4.0	3.1	2.8
	15.5	4.8	4.0	3.1	2.8
40	-15.0	3.3	3.3	3.3	3.3
	-10.0	3.8	3.8	3.7	3.5
	-5.0	4.3	4.2	3.9	3.5
	0.0	4.8	4.7	3.9	3.5
	2.5	5.0	5.0	3.9	3.5
	6.0	5.1	5.0	3.9	3.5
	7.5	5.3	5.0	3.9	3.5
	10.0	5.6	5.0	3.9	3.5
	12.5	6.0	5.0	3.9	3.5
	15.5	6.1	5.0	3.9	3.5

2-5.Cooling capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PMFY-P-VBM-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	20.0	1813	1564	1901	1635	2049	1632	2157	1687	2192	1745	2320	1722	2459	1697
	22.5	1813	1564	1894	1632	2031	1625	2131	1676	2164	1735	2290	1711	2424	1686
	25.0	1799	1557	1876	1624	2008	1615	2105	1666	2137	1724	2259	1700	2389	1674
	27.5	1784	1551	1857	1616	1985	1606	2079	1656	2110	1714	2229	1689	2354	1663
	30.0	1770	1544	1839	1608	1962	1596	2052	1646	2083	1703	2198	1678	2319	1652
	32.5	1755	1538	1821	1600	1939	1587	2026	1636	2055	1693	2167	1668	2285	1640
	35.0	1741	1531	1802	1592	1916	1577	2000	1626	2028	1683	2137	1657	2250	1629
	37.5	1726	1525	1784	1584	1893	1568	1974	1615	2001	1672	2106	1646	2215	1618
	40.0	1712	1518	1766	1576	1870	1559	1948	1605	1974	1662	2076	1636	2180	1607
	43.0	1695	1511	1744	1566	1843	1548	1916	1593	1941	1650	2039	1623	2139	1594
25	20.0	2266	1901	2377	1986	2561	1983	2697	2048	2740	2116	2900	2088	3073	2057
	22.5	2266	1901	2367	1982	2539	1974	2664	2035	2705	2103	2862	2074	3030	2043
	25.0	2248	1893	2345	1972	2510	1962	2631	2022	2671	2090	2824	2060	2986	2028
	27.5	2230	1885	2322	1962	2482	1950	2598	2009	2637	2077	2786	2046	2943	2014
	30.0	2212	1877	2299	1952	2453	1938	2566	1996	2603	2063	2748	2033	2899	2000
	32.5	2194	1868	2276	1942	2424	1926	2533	1983	2569	2050	2709	2019	2856	1985
	35.0	2176	1860	2253	1931	2395	1914	2500	1970	2535	2037	2671	2006	2812	1971
	37.5	2158	1852	2230	1921	2367	1902	2467	1957	2501	2024	2633	1992	2769	1957
	40.0	2140	1844	2207	1911	2338	1891	2434	1945	2467	2011	2595	1979	2725	1943
	43.0	2118	1834	2180	1899	2304	1876	2395	1929	2426	1996	2549	1962	2673	1926
32	20.0	2855	2163	2995	2252	3227	2252	3398	2315	3452	2382	3654	2348	3872	2311
	22.5	2855	2163	2983	2246	3199	2239	3357	2297	3409	2364	3606	2329	3817	2291
	25.0	2833	2152	2954	2233	3163	2223	3315	2280	3366	2346	3558	2310	3763	2272
	27.5	2810	2141	2925	2219	3127	2207	3274	2262	3323	2328	3510	2292	3708	2252
	30.0	2787	2129	2896	2205	3091	2191	3233	2245	3280	2310	3462	2273	3653	2233
	32.5	2765	2118	2868	2191	3055	2175	3191	2228	3237	2293	3414	2255	3598	2214
	35.0	2742	2107	2839	2178	3018	2159	3150	2210	3194	2275	3366	2237	3544	2195
	37.5	2719	2096	2810	2164	2982	2143	3109	2193	3151	2257	3318	2219	3489	2176
	40.0	2696	2085	2781	2151	2946	2127	3067	2176	3109	2240	3270	2200	3434	2157
	43.0	2669	2072	2746	2135	2902	2108	3018	2156	3057	2219	3212	2179	3368	2134
40	20.0	3625	2677	3803	2785	4098	2787	4315	2861	4383	2940	4640	2897	4917	2852
	22.5	3625	2677	3788	2778	4063	2770	4262	2839	4329	2917	4579	2873	4848	2826
	25.0	3597	2663	3751	2760	4017	2749	4210	2816	4274	2893	4518	2849	4778	2801
	27.5	3568	2649	3715	2742	3971	2728	4157	2793	4220	2870	4457	2825	4708	2775
	30.0	3539	2634	3678	2725	3925	2707	4105	2771	4165	2847	4396	2801	4639	2750
	32.5	3511	2620	3641	2707	3879	2687	4052	2748	4111	2824	4335	2777	4569	2725
	35.0	3482	2606	3605	2689	3833	2666	4000	2726	4056	2801	4274	2753	4500	2700
	37.5	3453	2591	3568	2672	3787	2645	3948	2703	4002	2778	4213	2730	4430	2675
	40.0	3424	2577	3531	2654	3741	2625	3895	2681	3947	2756	4152	2706	4361	2651
	43.0	3389	2560	3487	2633	3686	2600	3832	2655	3882	2729	4078	2678	4277	2621

2-6.Heating capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PMFY-P-VBM-A

SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.:°CDB			
		15	21	25	27
	°CWB	SHC	SHC	SHC	SHC
20	-15.0	1555	1532	1509	1500
	-10.0	1774	1751	1728	1601
	-5.0	1994	1970	1809	1601
	0.0	2213	2190	1809	1601
	2.5	2322	2250	1809	1601
	6.0	2343	2250	1809	1601
	7.5	2441	2250	1809	1601
	10.0	2605	2250	1809	1601
	12.5	2769	2250	1809	1601
	15.5	2807	2250	1809	1601
25	-15.0	1935	1907	1878	1866
	-10.0	2208	2179	2151	1992
	-5.0	2481	2452	2252	1992
	0.0	2754	2725	2252	1992
	2.5	2890	2800	2252	1992
	6.0	2915	2800	2252	1992
	7.5	3038	2800	2252	1992
	10.0	3242	2800	2252	1992
	12.5	3446	2800	2252	1992
	15.5	3493	2800	2252	1992

Unit size	Outdoor air temp.	Indoor air temp.:°CDB			
		15	21	25	27
	°CWB	SHC	SHC	SHC	SHC
32	-15.0	2454	2417	2381	2366
	-10.0	2800	2763	2727	2525
	-5.0	3146	3109	2855	2525
	0.0	3491	3455	2855	2525
	2.5	3664	3550	2855	2525
	6.0	3696	3550	2855	2525
	7.5	3852	3550	2855	2525
	10.0	4111	3550	2855	2525
	12.5	4370	3550	2855	2525
	15.5	4428	3550	2855	2525
40	-15.0	3111	3064	3018	2999
	-10.0	3549	3503	3456	3201
	-5.0	3987	3941	3619	3201
	0.0	4426	4379	3619	3201
	2.5	4645	4500	3619	3201
	6.0	4686	4500	3619	3201
	7.5	4883	4500	3619	3201
	10.0	5211	4500	3619	3201
	12.5	5539	4500	3619	3201
	15.5	5613	4500	3619	3201

2-7.Cooling Capacity (In combination with PQRY-P200·250YMF-B)

PMFY-P-VBM-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Water temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚C	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	10	1914	1610	1980	1670	2105	1655	2200	1703	2229	1759	2354	1734	2486	1706
	20	1844	1578	1908	1638	2029	1624	2120	1672	2148	1728	2268	1703	2396	1677
	30	1740	1531	1800	1591	1914	1577	2000	1626	2026	1682	2140	1658	2260	1633
	40	1514	1430	1566	1490	1665	1477	1740	1527	1763	1583	1862	1562	1966	1539
	45	1427	1392	1476	1451	1569	1439	1640	1489	1661	1546	1755	1526	1853	1503
25	10	2393	1960	2475	2031	2632	2013	2750	2069	2786	2135	2943	2103	3108	2069
	20	2306	1920	2385	1990	2536	1973	2650	2029	2684	2095	2836	2064	2995	2031
	30	2175	1860	2250	1930	2393	1913	2500	1970	2533	2036	2675	2007	2825	1975
	40	1892	1732	1958	1802	2081	1786	2175	1845	2203	1911	2327	1885	2458	1857
	45	1784	1684	1845	1754	1962	1739	2050	1798	2077	1864	2194	1839	2317	1812
32	10	3015	2241	3119	2311	3316	2291	3465	2344	3510	2406	3708	2368	3915	2327
	20	2905	2187	3005	2257	3195	2237	3339	2290	3382	2353	3573	2316	3773	2276
	30	2741	2107	2835	2176	3015	2157	3150	2210	3191	2274	3371	2239	3560	2200
	40	2384	1937	2466	2006	2623	1988	2741	2043	2776	2107	2932	2076	3097	2041
	45	2247	1873	2325	1942	2472	1925	2583	1980	2617	2044	2764	2014	2919	1982
40	10	3828	2780	3960	2863	4211	2838	4400	2899	4457	2972	4708	2924	4972	2872
	20	3689	2709	3816	2792	4058	2768	4240	2829	4295	2902	4537	2856	4791	2805
	30	3480	2605	3600	2687	3828	2664	4000	2726	4052	2799	4280	2756	4520	2707
	40	3028	2385	3132	2466	3330	2445	3480	2508	3525	2583	3724	2544	3932	2501
	45	2854	2303	2952	2384	3139	2363	3280	2427	3323	2502	3510	2465	3706	2424

2-8.Heating Capacity (In combination with PQRY-P200·250YMF-B)

PMFY-P-VBM-A

SHC:Sensible heat Capacity(kcal/h)

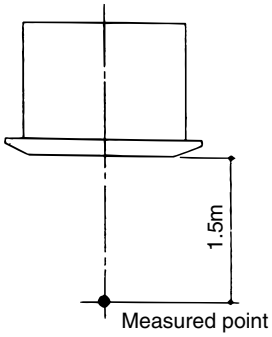
Unit size	Water temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚C	SHC	SHC	SHC	SHC
20	10	1951	1913	1549	1377
	20	2295	2250	1823	1620
	30	2295	2250	1823	1620
	40	2387	2340	1895	1685
	45	2616	2565	2078	1847
25	10	2428	2380	1928	1714
	20	2856	2800	2268	2016
	30	2856	2800	2268	2016
	40	2970	2912	2359	2097
	45	3256	3192	2586	2298

Unit size	Water temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚C	SHC	SHC	SHC	SHC
32	10	3078	3018	2444	2173
	20	3621	3550	2876	2556
	30	3621	3550	2876	2556
	40	3766	3692	2991	2658
	45	4128	4047	3278	2914
40	10	3902	3825	3098	2754
	20	4590	4500	3645	3240
	30	4590	4500	3645	3240
	40	4774	4680	3791	3370
	45	5233	5130	4155	3694

3. Sound levels

3-1. Noise level

Casette ceiling (VBM-A series)

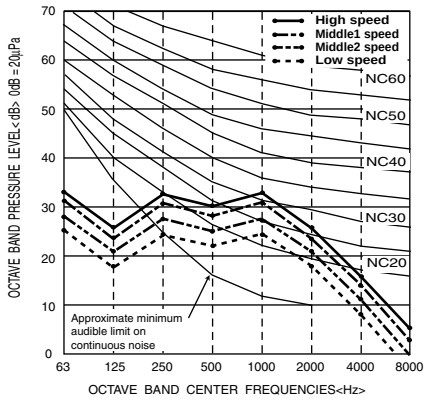


Noise level at anechoic room
(Low-Middle2-Middle1-High) Unit : dB(A)

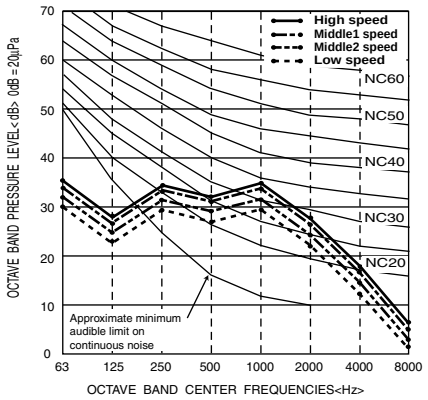
Model	Noise level (A weighted)
PMFY-P20VBM-A	27-30-33-35
PMFY-P25VBM-A PMFY-P32VBM-A	32-34-36-37
PMFY-P40VBM-A	33-35-37-39

3-2. NC curves

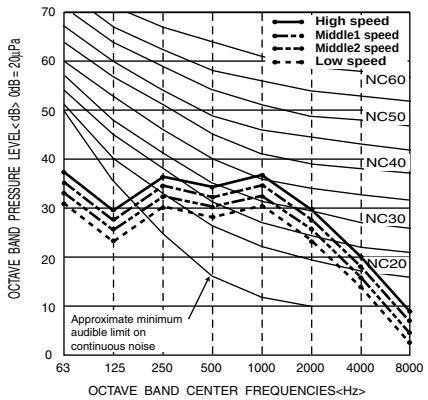
PMFY-P20VBM-A



PMFY-P25,32VBM-A



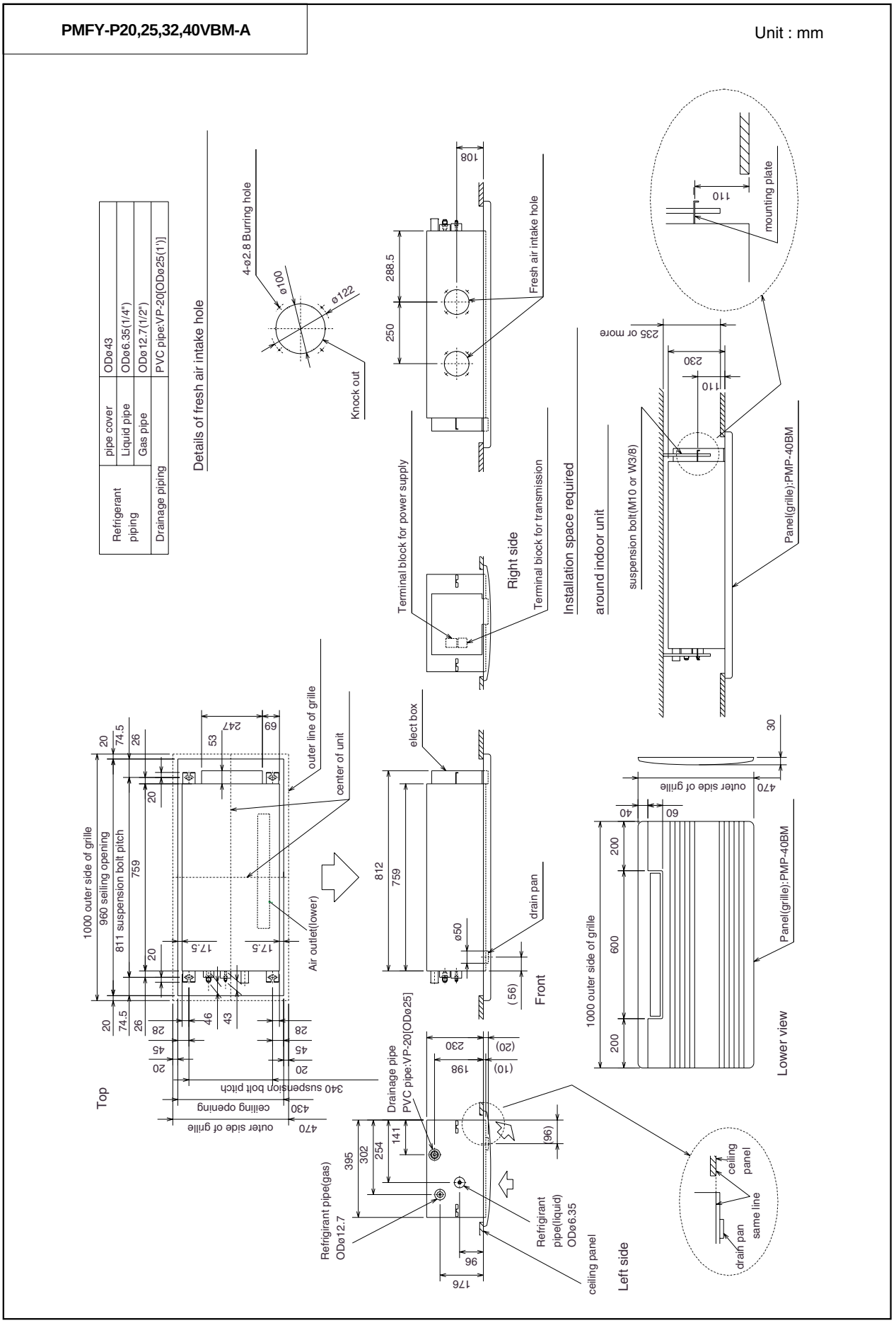
PMFY-P40VBM-A



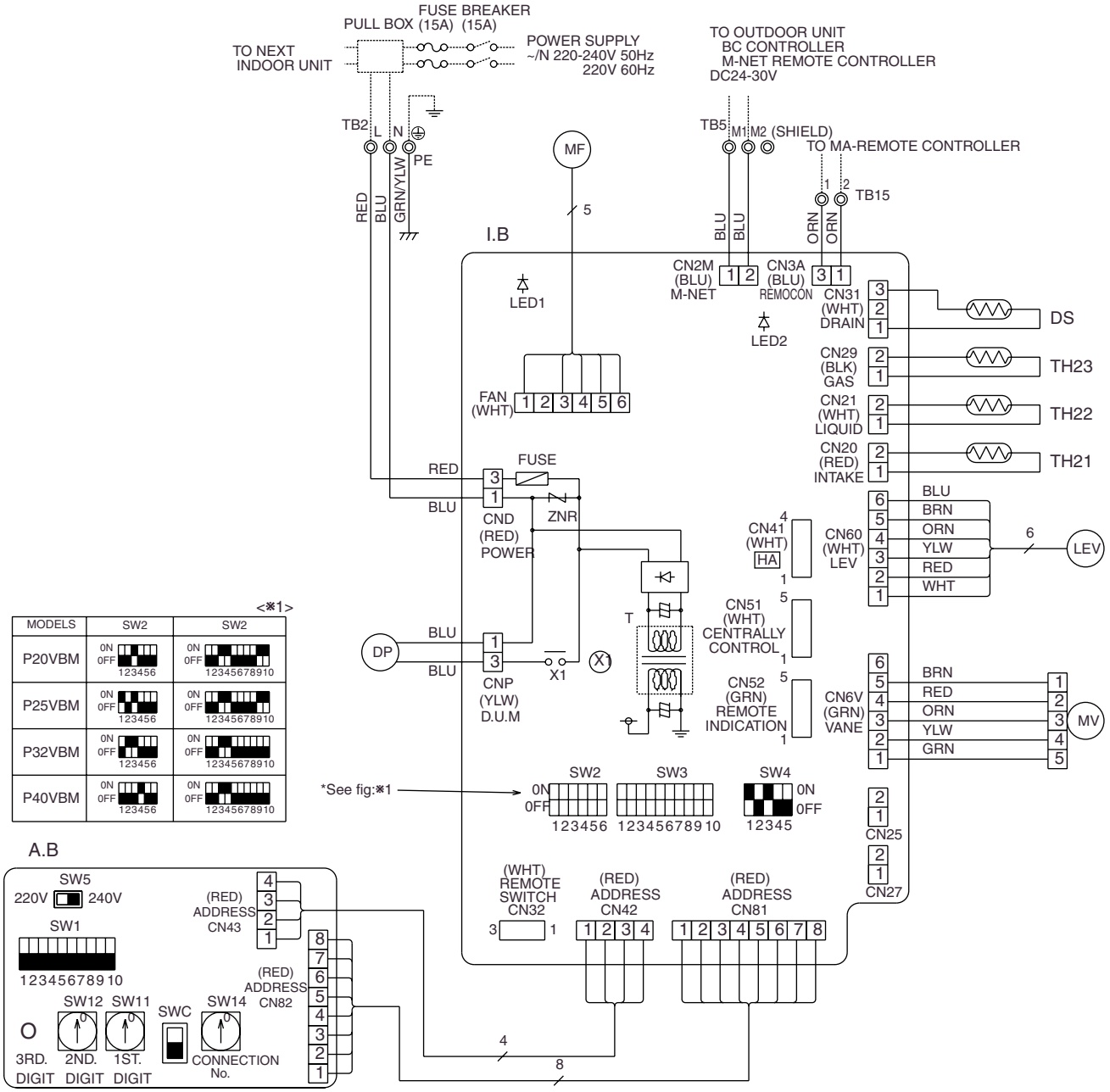
4. External dimension

PMFY-P20,25,32,40VBM-A

Unit : mm



5. Electrical Wiring Diagram



<※1>

MODELS	SW2	SW2
P20VBM	123456	12345678910
P25VBM	123456	12345678910
P32VBM	123456	12345678910
P40VBM	123456	12345678910

NOTES:
1. At servicing for outdoor unit,always follow the wiring diagram of outdoor unit.
2. In case of using MA-Remote controller, please connect to TB15. (Remote controller wire is non-polar.)
3. In case of using M-NET, please connect to TB5.(Transmission line is non-polar.)
4. Symbol[S] of TB5 is the shield wire connection.
5. Symbols used in wiring diagram above are, ◎:terminal block, □□□:connector.
6. The setting of the SW2 dip switches differs in the capacity. For the detail,see the table below.
7. Please set the switch SW5 according to the power supply voltage. Set SW5 to 240V side when the power supply is 230 and 240 volts. When the power supply is 220 volts,set SW5 to 220V side.

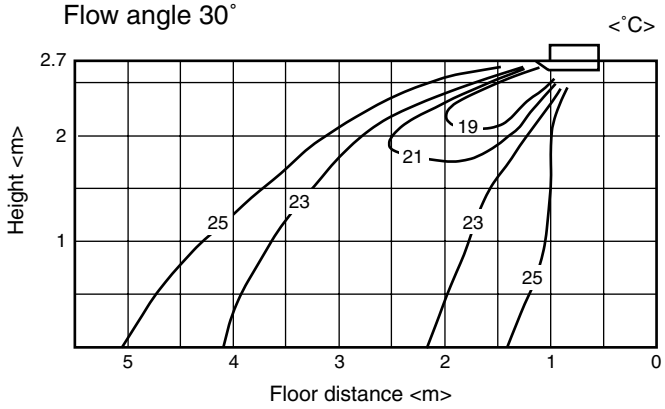
[LEGEND]

SYMBOL	NAME		SYMBOL	NAME
I.B	INDOOR CONTROLLER BOARD		MF	FAN MOTOR
CN25	CONNECTOR	HUMIDIFIER	MV	VANE MOTOR
CN27		DAMPER	DP	DRAIN WATER LIFTING-UP MACH.
CN32		REMOTE SWITCH	DS	DRAIN SENSOR
CN41		HA TERMINAL-A	TB2	TERMINAL BLOCK POWER SUPPLY
CN51		CENTRALLY CONTROL	TB5	TRANSMISSION
CN52		REMOTE INDICATION	TB15	MA-REMOTE CONTROLLER
SW2	SWITCH	CAPACITY CODE	TH21	THERMISTOR ROOM TEMP.DETECTION (0˚C/15kΩ ,25˚C/5.4kΩ)
SW3		MODE SELECTION		
SW4		MODEL SELECTION	TH22	PIPE TEMP.DETECTION/LIQUID (0˚C/15kΩ ,25˚C/5.4kΩ)
ZNR	VARISTOR			
FUSE	FUSE(6.3A/250V)		TH23	PIPE TEMP.DETECTION/GAS (0˚C/15kΩ ,25˚C/5.4kΩ)
X1	AUX.RELAY	DRAIN PUMP		
T	TRANSFORMER		LEV	LINEAR EXPANSION VALVE
LED1	POWER SUPPLY(I.B)			
LED2	POWER SUPPLY(R.B)			
A.B	CIRCUIT BOARD			
SW1	SWITCH	MODE SELECTION		
SW5		VOLTAGE SELECTION		
SW11		ADDRESS SETTING 1ST DIGIT		
SW12		ADDRESS SETTING 2ND DIGIT		
SW14		CONNECTION NO.		

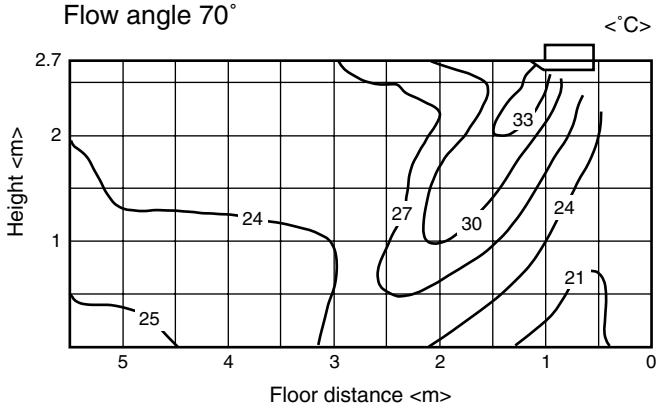
6. Temperature/Airflow distribution

● Temperature distribution

<Cooling mode>
Flow angle 30˚

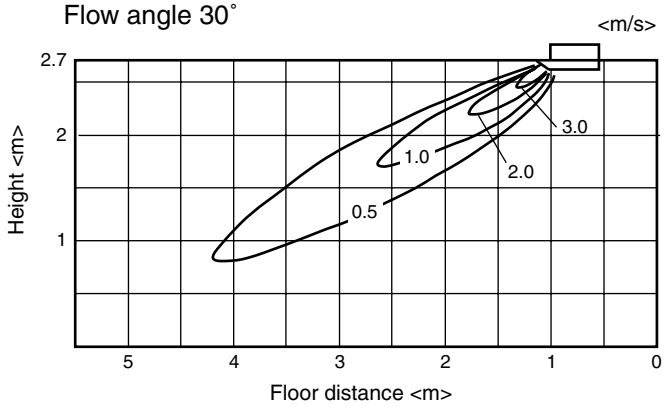


<Heating mode>
Flow angle 70˚

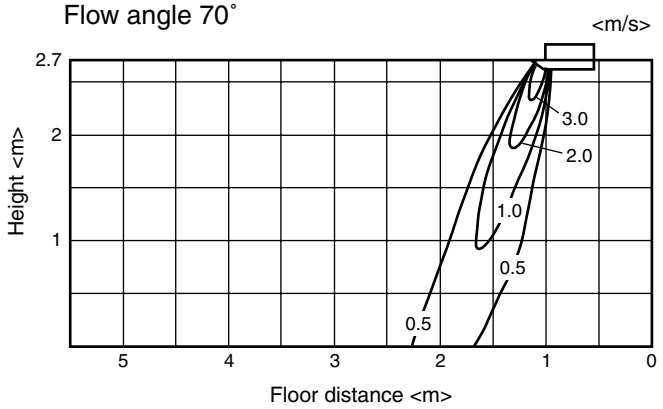


● Airflow distribution

<Fan mode>
Flow angle 30˚



<Fan mode>
Flow angle 70˚



7. Options

Description	Model	Applicable capacity
Decoration panel	PMP-40BM	P20/P25/P32/P40

Cassette ceiling(2-way flow) PLFY-P-VLMD-A

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1. Specifications

				PLFY-P20VLMD-A	PLFY-P25VLMD-A	PLFY-P32VLMD-A	PLFY-P40VLMD-A	PLFY-P50VLMD-A
Power source				~ 220-240V 50Hz				
Cooling capacity		※1	kW	2.2	2.8	3.6	4.5	5.6
		※2	kcal/h	2,000	2,500	3,150	4,000	5,000
Heating capacity		※1	kW	2.5	3.2	4.0	5.0	6.3
Power consumption	Cooling		kW	0.09		0.10	0.16	
	Heating		kW	0.08		0.09	0.15	
Current	Cooling		A	0.43		0.48	0.77	
	Heating		A	0.38		0.43	0.71	
External finish(Munsel No.)				Unit : Galvanized steel plate Panel : 0.70Y8.59/0.97				
Dimension ※3	Height		mm	338 <8>				
	Width		mm	768 <1,060>			1,008 <1,300>	
	Depth		mm	606 <670>				
Net weight ※3			kg	24 <7>		25 <7>	33.5 <8>	35 <8>
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)				
Fan	Type			Sirocco fan× 1			Sirocco fan× 2	
	Airflow rate (Lo-Mid2-Mid1-Hi)		m^3/min	6.0-6.5-7.3-8.0		6.5-7.0-7.8-8.5	9.0-10.5-11.5-12.5	10.0-11.0-12.0-13.0
	External static pressure		Pa	0				
Motor	Type			Single phase induction motor				
	Output		kW	0.033			0.075	
Air filter				Synthetic fiber unwoven cloth filter (long life)				
Refrigerant pipe dimension	Gas (Flare)		mm	ø 12.7				ø 15.88
	Liqud (Flare)		mm	ø 6.35				ø 9.52
Drain pipe dimension				VP-25				
Noise level (Lo-Mid2-Mid1-Hi)			dB(A)	28-30-33-35		29-31-34-36	29-32-34-36	32-34-36-38

				PLFY-P63VLMD-A	PLFY-P80VLMD-A	PLFY-P100VLMD-A	PLFY-P125VLMD-A
Power source				~ 220-240V 50Hz			
Cooling capacity		※1	kW	7.1	9.0	11.2	14.0
		※2	kcal/h	6,300	8,000	10,000	12,500
Heating capacity		※1	kW	8.0	10.0	12.5	16.0
Power consumption	Cooling		kW	0.22	0.23	0.25	0.28
	Heating		kW	0.21	0.22	0.24	0.27
Current	Cooling		A	1.05	1.10	1.20	1.35
	Heating		A	1.00	1.05	1.15	1.33
External finish(Munsel No.)				Unit : Galvanized steel plate Panel : 0.70V8.59/0.97			
Dimension ※3	Height		mm	338 <8>			
	Width		mm	1,358 <1,650>		1,708 <2,000>	
	Depth		mm	606 <670>			
Net weight ※3			kg	39 <10>		56 <11.5>	
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)			
Fan	Type			Sirocco fan× 2		Sirocco fan× 4	
	Airflow rate (Lo-Mid2-Mid1-Hi)		m^3/min	13.0-14.0-16.0-18.0	15.0-17.0-19.0-21.0	21.0-23.0-26.0-29.0	24.0-27.0-30.0-33.0
	External static pressure		Pa	0			
Motor	Type			Single phase induction motor			
	Output		kW	0.078		0.078× 2	
Air filter				Synthetic fiber unwoven cloth filter (long life)			
Refrigerant pipe dimension	Gas (Flare)		mm	15.88		ø 19.05	
	Liqud (Flare)		mm	ø 9.52			
Drain pipe dimension				VP-25			
Noise level (Lo-Mid2-Mid1-Hi)			dB(A)	32-34-37-39	36-38-41-43	37-39-41-43	40-42-44-46

Note: ※1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19˚CWB,Outdoor 35˚CDB
Heating : Indoor 20˚CDB,Outdoor 7˚CDB/6˚CWB
※2 Cooling capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19.5˚CWB,Outdoor 35˚CDB (WR2: water 30˚C)
※3 The figure in < > indicates panel's

2. Capacity tables

2-1.Cooling Capacity (In combination with PUMY-125YM(A))

PLFY-P-VLMD-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.							
		23˚CDB 16˚CWB		25˚CDB 18˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20 (2.2)	20.0	2.2	1.8	2.3	1.8	2.4	1.8	2.6	1.9
	22.5	2.1	1.7	2.3	1.8	2.4	1.8	2.6	1.9
	25.0	2.1	1.7	2.3	1.8	2.4	1.8	2.5	1.9
	27.5	2.1	1.7	2.2	1.8	2.4	1.8	2.5	1.9
	30.0	2.1	1.7	2.2	1.8	2.3	1.8	2.5	1.9
	32.5	2.0	1.7	2.2	1.8	2.3	1.8	2.5	1.8
	35.0	2.0	1.7	2.1	1.8	2.3	1.8	2.4	1.8
	37.5	2.0	1.7	2.1	1.8	2.2	1.7	2.4	1.8
	40.0	2.0	1.7	2.1	1.8	2.2	1.7	2.4	1.8
	46.0	1.9	1.6	2.0	1.7	2.1	1.7	2.3	1.8
25 (2.8)	20.0	2.8	2.1	2.9	2.1	3.1	2.1	3.3	2.2
	22.5	2.7	2.0	2.9	2.1	3.1	2.1	3.2	2.2
	25.0	2.7	2.0	2.9	2.1	3.1	2.1	3.2	2.2
	27.5	2.7	2.0	2.8	2.1	3.0	2.1	3.2	2.1
	30.0	2.6	2.0	2.8	2.1	3.0	2.1	3.2	2.1
	32.5	2.6	2.0	2.8	2.1	2.9	2.0	3.1	2.1
	35.0	2.6	1.9	2.7	2.0	2.9	2.0	3.1	2.1
	37.5	2.5	1.9	2.7	2.0	2.9	2.0	3.0	2.1
	40.0	2.5	1.9	2.7	2.0	2.8	2.0	3.0	2.1
	46.0	2.4	1.9	2.6	2.0	2.7	1.9	2.9	2.0
32 (3.6)	20.0	3.6	2.5	3.7	2.6	4.0	2.6	4.2	2.7
	22.5	3.5	2.5	3.7	2.6	4.0	2.6	4.2	2.7
	25.0	3.5	2.5	3.7	2.6	3.9	2.6	4.1	2.7
	27.5	3.4	2.5	3.6	2.6	3.9	2.6	4.1	2.6
	30.0	3.4	2.4	3.6	2.6	3.8	2.5	4.1	2.6
	32.5	3.3	2.4	3.6	2.5	3.8	2.5	4.0	2.6
	35.0	3.3	2.4	3.5	2.5	3.7	2.5	4.0	2.6
	37.5	3.2	2.4	3.5	2.5	3.7	2.5	3.9	2.6
	40.0	3.2	2.4	3.4	2.5	3.6	2.5	3.9	2.5
	46.0	3.1	2.3	3.3	2.4	3.5	2.4	3.7	2.5
40 (4.5)	20.0	4.5	3.2	4.7	3.4	5.0	3.3	5.3	3.4
	22.5	4.4	3.2	4.6	3.3	5.0	3.3	5.2	3.4
	25.0	4.3	3.2	4.6	3.3	4.9	3.3	5.2	3.4
	27.5	4.3	3.1	4.6	3.3	4.9	3.3	5.1	3.4
	30.0	4.2	3.1	4.5	3.3	4.8	3.2	5.1	3.3
	32.5	4.2	3.1	4.4	3.2	4.7	3.2	5.0	3.3
	35.0	4.1	3.1	4.4	3.2	4.7	3.2	5.0	3.3
	37.5	4.1	3.0	4.3	3.2	4.6	3.2	4.9	3.3
	40.0	4.0	3.0	4.3	3.2	4.5	3.1	4.8	3.2
	46.0	3.8	2.9	4.1	3.1	4.3	3.0	4.6	3.2
50 (5.6)	20.0	5.5	4.0	5.8	4.1	6.2	4.1	6.6	4.2
	22.5	5.5	3.9	5.8	4.1	6.2	4.1	6.5	4.2
	25.0	5.4	3.9	5.7	4.1	6.1	4.1	6.4	4.2
	27.5	5.3	3.9	5.7	4.1	6.0	4.0	6.4	4.1
	30.0	5.3	3.8	5.6	4.0	5.9	4.0	6.3	4.1
	32.5	5.2	3.8	5.5	4.0	5.9	3.9	6.2	4.1
	35.0	5.1	3.7	5.5	3.9	5.8	3.9	6.2	4.0
	37.5	5.0	3.7	5.4	3.9	5.7	3.9	6.1	4.0
	40.0	5.0	3.7	5.3	3.9	5.6	3.8	6.0	4.0
	46.0	4.8	3.6	5.1	3.8	5.4	3.7	5.8	3.9
63 (7.1)	20.0	7.0	5.1	7.4	5.3	7.9	5.3	8.3	5.4
	22.5	6.9	5.0	7.3	5.2	7.8	5.2	8.2	5.4
	25.0	6.9	5.0	7.3	5.2	7.7	5.2	8.2	5.3
	27.5	6.8	4.9	7.2	5.2	7.7	5.1	8.1	5.3
	30.0	6.7	4.9	7.1	5.1	7.5	5.1	8.0	5.3
	32.5	6.6	4.8	7.0	5.1	7.5	5.1	7.9	5.2
	35.0	6.5	4.8	6.9	5.0	7.3	5.0	7.8	5.2
	37.5	6.4	4.7	6.8	5.0	7.2	5.0	7.7	5.1
	40.0	6.3	4.7	6.7	5.0	7.2	4.9	7.6	5.1
	46.0	6.1	4.6	6.5	4.8	6.9	4.8	7.3	5.0

Cooling Capacity (In combination with PUMY-125YM(A))

PLFY-P-VLMD-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.							
		23˚CDB 16˚CWB		25˚CDB 18˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC
80 (9.0)	20.0	8.9	6.3	9.4	6.6	10.0	6.6	10.6	6.7
	22.5	8.8	6.3	9.3	6.6	9.9	6.5	10.4	6.7
	25.0	8.7	6.2	9.2	6.5	9.8	6.5	10.4	6.7
	27.5	8.6	6.2	9.1	6.5	9.7	6.4	10.3	6.6
	30.0	8.5	6.1	9.0	6.4	9.5	6.4	10.2	6.6
	32.5	8.3	6.0	8.9	6.4	9.5	6.3	10.0	6.5
	35.0	8.2	6.0	8.8	6.3	9.3	6.2	9.9	6.5
	37.5	8.1	5.9	8.6	6.2	9.2	6.2	9.8	6.4
	40.0	8.0	5.9	8.6	6.2	9.1	6.1	9.6	6.3
	46.0	7.7	5.7	8.2	6.0	8.7	6.0	9.3	6.2
100 (11.2)	20.0	11.1	8.3	11.6	8.6	12.5	8.6	13.1	8.8
	22.5	10.9	8.2	11.5	8.6	12.3	8.5	13.0	8.8
	25.0	10.8	8.1	11.5	8.5	12.2	8.5	12.9	8.7
	27.5	10.7	8.1	11.3	8.5	12.1	8.4	12.8	8.7
	30.0	10.5	8.0	11.2	8.4	11.9	8.3	12.6	8.6
	32.5	10.4	7.9	11.1	8.3	11.8	8.3	12.5	8.5
	35.0	10.2	7.8	10.9	8.3	11.6	8.2	12.3	8.5
	37.5	10.1	7.8	10.8	8.2	11.4	8.1	12.2	8.4
	40.0	10.0	7.7	10.6	8.1	11.3	8.1	12.0	8.3
	46.0	9.6	7.5	10.2	7.9	10.8	7.8	11.5	8.1
125 (14.0)	20.0	13.9	10.1	14.6	10.5	15.6	10.5	16.4	10.8
	22.5	13.7	10.0	14.4	10.5	15.4	10.4	16.2	10.7
	25.0	13.5	10.0	14.3	10.4	15.3	10.3	16.1	10.6
	27.5	13.4	9.9	14.2	10.3	15.1	10.3	16.0	10.6
	30.0	13.2	9.8	14.0	10.3	14.9	10.2	15.8	10.5
	32.5	13.0	9.7	13.8	10.2	14.7	10.1	15.6	10.4
	35.0	12.8	9.6	13.7	10.1	14.5	10.0	15.4	10.3
	37.5	12.6	9.5	13.4	10.0	14.3	9.9	15.2	10.3
	40.0	12.5	9.4	13.3	9.9	14.1	9.8	15.0	10.2
	46.0	12.0	9.2	12.8	9.7	13.5	9.6	14.4	9.9

2-2.Heating Capacity (In combination with PUMY-125YM(A))

PLFY-P-VLMD-A

SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB		
		15.0	20.0	25.0
	˚CWB	SHC	SHC	SHC
20	-12.0	1.6	1.6	1.5
	-10.0	1.7	1.6	1.6
	-5.0	1.9	1.9	1.9
	0.0	2.2	2.1	2.1
	2.5	2.3	2.3	2.3
	6.0	2.5	2.5	2.5
	7.5	2.6	2.6	2.5
	10.0	2.8	2.7	2.5
	12.5	2.9	2.8	2.5
	15.5	3.1	2.8	2.5
25	-12.0	2.0	2.0	2.0
	-10.0	2.1	2.1	2.1
	-5.0	2.4	2.4	2.4
	0.0	2.8	2.8	2.7
	2.5	3.0	2.9	2.9
	6.0	3.2	3.2	3.2
	7.5	3.3	3.3	3.2
	10.0	3.5	3.5	3.2
	12.5	3.7	3.5	3.2
	15.5	3.9	3.5	3.2
32	-12.0	2.5	2.5	2.5
	-10.0	2.7	2.6	2.6
	-5.0	3.1	3.0	3.0
	0.0	3.5	3.4	3.4
	2.5	3.7	3.7	3.6
	6.0	4.0	4.0	3.9
	7.5	4.2	4.1	4.0
	10.0	4.4	4.4	4.0
	12.5	4.7	4.4	4.0
	15.5	4.9	4.4	4.0
40	-12.0	3.2	3.1	3.1
	-10.0	3.4	3.3	3.2
	-5.0	3.8	3.8	3.7
	0.0	4.3	4.3	4.2
	2.5	4.6	4.6	4.5
	6.0	5.0	5.0	4.9
	7.5	5.2	5.2	5.0
	10.0	5.5	5.5	5.0
	12.5	5.9	5.5	5.0
	15.5	6.2	5.5	5.0
50	-12.0	4.0	3.9	3.9
	-10.0	4.2	4.2	4.1
	-5.0	4.8	4.8	4.7
	0.0	5.5	5.4	5.3
	2.5	5.8	5.8	5.7
	6.0	6.3	6.3	6.2
	7.5	6.6	6.5	6.2
	10.0	7.0	6.9	6.2
	12.5	7.4	7.0	6.2
	15.5	7.7	7.0	6.2

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB		
		15.0	20.0	25.0
	˚CWB	SHC	SHC	SHC
63	-12.0	5.1	5.0	4.9
	-10.0	5.4	5.3	5.2
	-5.0	6.1	6.0	5.9
	0.0	6.9	6.9	6.8
	2.5	7.4	7.3	7.2
	6.0	8.0	8.0	7.9
	7.5	8.3	8.3	7.9
	10.0	8.8	8.8	7.9
	12.5	9.4	8.8	7.9
	15.5	9.8	8.8	7.9
80	-12.0	6.4	6.2	6.1
	-10.0	6.7	6.6	6.5
	-5.0	7.6	7.5	7.4
	0.0	8.7	8.6	8.5
	2.5	9.2	9.2	9.0
	6.0	10.1	10.0	9.9
	7.5	10.4	10.4	9.9
	10.0	11.1	11.0	9.9
	12.5	11.7	11.0	9.9
	15.5	12.3	11.0	9.9
100	-12.0	8.0	7.8	7.7
	-10.0	8.4	8.2	8.1
	-5.0	9.6	9.4	9.3
	0.0	10.9	10.7	10.6
	2.5	11.5	11.4	11.3
	6.0	12.6	12.5	12.3
	7.5	13.0	12.9	12.4
	10.0	13.8	13.7	12.4
	12.5	14.6	13.8	12.4
	15.5	15.4	13.8	12.4
125	-12.0	10.2	10.0	9.8
	-10.0	10.7	10.6	10.4
	-5.0	12.2	12.1	11.9
	0.0	13.9	13.8	13.6
	2.5	14.8	14.7	14.5
	6.0	16.1	16.0	15.8
	7.5	16.7	16.6	15.8
	10.0	17.7	17.6	15.8
	12.5	18.7	17.7	15.8
	15.5	19.7	17.7	15.8

2-3.Cooling Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PLFY-P-VLMD-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	20.0	2.2	1.8	2.2	1.8	2.3	1.8	2.3	1.8	2.4	1.9	2.5	1.8	2.6	1.8
(2.2)	22.5	2.1	1.7	2.2	1.8	2.3	1.8	2.3	1.8	2.4	1.8	2.4	1.8	2.5	1.8
	25.0	2.1	1.7	2.2	1.8	2.2	1.7	2.3	1.8	2.3	1.8	2.4	1.8	2.5	1.8
	27.5	2.1	1.7	2.1	1.8	2.2	1.7	2.3	1.8	2.3	1.8	2.4	1.8	2.5	1.7
	30.0	2.1	1.7	2.1	1.8	2.2	1.7	2.2	1.8	2.3	1.8	2.4	1.8	2.5	1.7
	32.5	2.0	1.7	2.1	1.8	2.2	1.7	2.2	1.7	2.3	1.8	2.4	1.8	2.4	1.7
	35.0	2.0	1.7	2.1	1.7	2.2	1.7	2.2	1.7	2.2	1.8	2.3	1.8	2.4	1.7
	37.5	2.0	1.7	2.0	1.7	2.1	1.7	2.2	1.7	2.2	1.8	2.3	1.8	2.4	1.7
	40.0	2.0	1.7	2.0	1.7	2.1	1.7	2.2	1.7	2.2	1.8	2.3	1.7	2.4	1.7
	43.0	2.0	1.7	2.0	1.7	2.1	1.7	2.1	1.7	2.2	1.8	2.3	1.7	2.3	1.7
25	20.0	2.7	2.0	2.8	2.1	2.9	2.0	3.0	2.1	3.0	2.1	3.1	2.1	3.2	2.0
(2.8)	22.5	2.7	2.0	2.8	2.1	2.9	2.0	2.9	2.0	3.0	2.1	3.1	2.0	3.2	2.0
	25.0	2.7	2.0	2.7	2.1	2.9	2.0	2.9	2.0	3.0	2.1	3.1	2.0	3.2	2.0
	27.5	2.7	2.0	2.7	2.0	2.8	2.0	2.9	2.0	2.9	2.1	3.1	2.0	3.2	2.0
	30.0	2.6	2.0	2.7	2.0	2.8	2.0	2.9	2.0	2.9	2.1	3.0	2.0	3.1	2.0
	32.5	2.6	2.0	2.7	2.0	2.8	2.0	2.8	2.0	2.9	2.1	3.0	2.0	3.1	2.0
	35.0	2.6	2.0	2.6	2.0	2.7	2.0	2.8	2.0	2.9	2.0	3.0	2.0	3.1	1.9
	37.5	2.5	1.9	2.6	2.0	2.7	1.9	2.8	2.0	2.8	2.0	2.9	2.0	3.1	1.9
	40.0	2.5	1.9	2.6	2.0	2.7	1.9	2.7	2.0	2.8	2.0	2.9	2.0	3.0	1.9
	43.0	2.5	1.9	2.5	2.0	2.7	1.9	2.7	1.9	2.8	2.0	2.9	2.0	3.0	1.9
32	20.0	3.5	2.5	3.6	2.6	3.7	2.5	3.8	2.5	3.9	2.6	4.0	2.5	4.2	2.4
(3.6)	22.5	3.5	2.5	3.6	2.5	3.7	2.5	3.8	2.5	3.9	2.6	4.0	2.5	4.1	2.4
	25.0	3.5	2.5	3.5	2.5	3.7	2.5	3.7	2.5	3.8	2.6	4.0	2.5	4.1	2.4
	27.5	3.4	2.5	3.5	2.5	3.6	2.5	3.7	2.5	3.8	2.5	3.9	2.5	4.1	2.4
	30.0	3.4	2.4	3.5	2.5	3.6	2.4	3.7	2.5	3.7	2.5	3.9	2.5	4.0	2.4
	32.5	3.3	2.4	3.4	2.5	3.6	2.4	3.6	2.4	3.7	2.5	3.9	2.4	4.0	2.4
	35.0	3.3	2.4	3.4	2.5	3.5	2.4	3.6	2.4	3.7	2.5	3.8	2.4	4.0	2.4
	37.5	3.3	2.4	3.3	2.4	3.5	2.4	3.6	2.4	3.6	2.5	3.8	2.4	3.9	2.4
	40.0	3.2	2.4	3.3	2.4	3.5	2.4	3.5	2.4	3.6	2.5	3.7	2.4	3.9	2.3
	43.0	3.2	2.4	3.3	2.4	3.4	2.4	3.5	2.4	3.6	2.4	3.7	2.4	3.8	2.3
40	20.0	4.4	3.2	4.5	3.3	4.7	3.2	4.8	3.2	4.9	3.3	5.0	3.2	5.2	3.1
(4.5)	22.5	4.4	3.2	4.5	3.2	4.6	3.2	4.7	3.2	4.8	3.3	5.0	3.2	5.2	3.1
	25.0	4.3	3.2	4.4	3.2	4.6	3.2	4.7	3.2	4.8	3.3	5.0	3.2	5.1	3.1
	27.5	4.3	3.1	4.4	3.2	4.5	3.1	4.6	3.2	4.7	3.3	4.9	3.2	5.1	3.1
	30.0	4.2	3.1	4.3	3.2	4.5	3.1	4.6	3.1	4.7	3.2	4.9	3.2	5.0	3.1
	32.5	4.2	3.1	4.3	3.2	4.5	3.1	4.5	3.1	4.6	3.2	4.8	3.1	5.0	3.0
	35.0	4.1	3.1	4.2	3.1	4.4	3.1	4.5	3.1	4.6	3.2	4.8	3.1	5.0	3.0
	37.5	4.1	3.0	4.2	3.1	4.4	3.1	4.5	3.1	4.5	3.2	4.7	3.1	4.9	3.0
	40.0	4.1	3.0	4.1	3.1	4.3	3.0	4.4	3.1	4.5	3.2	4.7	3.1	4.9	3.0
	43.0	4.0	3.0	4.1	3.1	4.3	3.0	4.4	3.0	4.4	3.1	4.6	3.1	4.8	3.0
50	20.0	5.5	3.9	5.6	4.0	5.8	3.9	5.9	3.9	6.0	4.1	6.3	3.9	6.5	3.8
(5.6)	22.5	5.4	3.9	5.5	4.0	5.8	3.9	5.9	3.9	6.0	4.0	6.2	3.9	6.4	3.8
	25.0	5.4	3.9	5.5	4.0	5.7	3.9	5.8	3.9	5.9	4.0	6.2	3.9	6.4	3.8
	27.5	5.3	3.9	5.4	3.9	5.7	3.8	5.8	3.9	5.9	4.0	6.1	3.9	6.3	3.8
	30.0	5.3	3.8	5.4	3.9	5.6	3.8	5.7	3.8	5.8	4.0	6.0	3.9	6.3	3.7
	32.5	5.2	3.8	5.3	3.9	5.5	3.8	5.7	3.8	5.8	3.9	6.0	3.8	6.2	3.7
	35.0	5.2	3.8	5.3	3.9	5.5	3.8	5.6	3.8	5.7	3.9	5.9	3.8	6.2	3.7
	37.5	5.1	3.7	5.2	3.8	5.4	3.7	5.5	3.8	5.7	3.9	5.9	3.8	6.1	3.7
	40.0	5.0	3.7	5.2	3.8	5.4	3.7	5.5	3.7	5.6	3.9	5.8	3.8	6.0	3.7
	43.0	5.0	3.7	5.1	3.8	5.3	3.7	5.4	3.7	5.5	3.8	5.8	3.7	6.0	3.6
63	20.0	7.0	5.0	7.1	5.1	7.4	5.0	7.5	5.0	7.7	5.2	8.0	5.1	8.2	4.9
(7.1)	22.5	6.9	5.0	7.0	5.1	7.3	5.0	7.5	5.0	7.6	5.2	7.9	5.0	8.2	4.9
	25.0	6.8	5.0	7.0	5.1	7.2	5.0	7.4	5.0	7.5	5.1	7.8	5.0	8.1	4.9
	27.5	6.7	4.9	6.9	5.0	7.2	4.9	7.3	5.0	7.5	5.1	7.7	5.0	8.0	4.8
	30.0	6.7	4.9	6.8	5.0	7.1	4.9	7.2	4.9	7.4	5.1	7.7	4.9	8.0	4.8
	32.5	6.6	4.9	6.7	5.0	7.0	4.9	7.2	4.9	7.3	5.0	7.6	4.9	7.9	4.8
	35.0	6.5	4.8	6.7	4.9	7.0	4.8	7.1	4.9	7.2	5.0	7.5	4.9	7.8	4.8
	37.5	6.5	4.8	6.6	4.9	6.9	4.8	7.0	4.8	7.2	5.0	7.5	4.9	7.7	4.7
	40.0	6.4	4.7	6.5	4.9	6.8	4.8	7.0	4.8	7.1	5.0	7.4	4.8	7.7	4.7
	43.0	6.3	4.7	6.4	4.8	6.7	4.7	6.9	4.8	7.0	4.9	7.3	4.8	7.6	4.7

Cooling Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PLFY-P-VLMD-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
80	20.0	8.8	6.3	9.0	6.4	9.4	6.3	9.5	6.3	9.7	6.5	10.1	6.3	10.4	6.1
(9.0)	22.5	8.7	6.3	8.9	6.4	9.3	6.2	9.5	6.3	9.6	6.4	10.0	6.3	10.4	6.1
	25.0	8.6	6.2	8.8	6.3	9.2	6.2	9.4	6.2	9.5	6.4	9.9	6.2	10.3	6.0
	27.5	8.6	6.2	8.7	6.3	9.1	6.1	9.3	6.2	9.5	6.4	9.8	6.2	10.2	6.0
	30.0	8.5	6.1	8.6	6.2	9.0	6.1	9.2	6.1	9.4	6.3	9.7	6.2	10.1	6.0
	32.5	8.4	6.1	8.6	6.2	8.9	6.1	9.1	6.1	9.3	6.3	9.6	6.1	10.0	5.9
	35.0	8.3	6.0	8.5	6.2	8.8	6.0	9.0	6.1	9.2	6.2	9.5	6.1	9.9	5.9
	37.5	8.2	6.0	8.4	6.1	8.7	6.0	8.9	6.0	9.1	6.2	9.5	6.1	9.8	5.9
	40.0	8.1	5.9	8.3	6.1	8.6	5.9	8.8	6.0	9.0	6.2	9.4	6.0	9.7	5.9
	43.0	8.0	5.9	8.2	6.0	8.5	5.9	8.7	5.9	8.9	6.1	9.3	6.0	9.6	5.8
100	20.0	11.0	8.2	11.2	8.4	11.6	8.2	11.9	8.3	12.1	8.5	12.5	8.3	13.0	8.1
(11.2)	22.5	10.9	8.2	11.1	8.3	11.5	8.2	11.8	8.2	12.0	8.5	12.4	8.3	12.9	8.1
	25.0	10.8	8.1	11.0	8.3	11.4	8.1	11.6	8.2	11.9	8.5	12.3	8.2	12.8	8.0
	27.5	10.6	8.0	10.9	8.2	11.3	8.1	11.5	8.1	11.8	8.4	12.2	8.2	12.7	8.0
	30.0	10.5	8.0	10.8	8.2	11.2	8.0	11.4	8.1	11.6	8.4	12.1	8.2	12.5	7.9
	32.5	10.4	7.9	10.6	8.1	11.1	8.0	11.3	8.0	11.5	8.3	12.0	8.1	12.4	7.9
	35.0	10.3	7.9	10.5	8.1	11.0	7.9	11.2	8.0	11.4	8.3	11.9	8.1	12.3	7.9
	37.5	10.2	7.8	10.4	8.0	10.9	7.9	11.1	8.0	11.3	8.2	11.8	8.0	12.2	7.8
	40.0	10.1	7.8	10.3	8.0	10.8	7.8	11.0	7.9	11.2	8.2	11.6	8.0	12.1	7.8
	43.0	9.9	7.7	10.2	7.9	10.6	7.8	10.8	7.9	11.1	8.1	11.5	7.9	12.0	7.7
125	20.0	13.7	10.1	14.0	10.3	14.6	10.0	14.8	10.1	15.1	10.4	15.7	10.1	16.2	9.8
(14.0)	22.5	13.6	10.0	13.9	10.2	14.4	10.0	14.7	10.0	15.0	10.3	15.5	10.1	16.1	9.8
	25.0	13.4	9.9	13.7	10.1	14.3	9.9	14.6	10.0	14.8	10.3	15.4	10.0	16.0	9.7
	27.5	13.3	9.8	13.6	10.1	14.1	9.8	14.4	9.9	14.7	10.2	15.3	10.0	15.8	9.7
	30.0	13.2	9.8	13.4	10.0	14.0	9.8	14.3	9.9	14.6	10.2	15.1	9.9	15.7	9.6
	32.5	13.0	9.7	13.3	9.9	13.9	9.7	14.1	9.8	14.4	10.1	15.0	9.9	15.5	9.6
	35.0	12.9	9.6	13.2	9.9	13.7	9.7	14.0	9.7	14.3	10.1	14.8	9.8	15.4	9.5
	37.5	12.7	9.6	13.0	9.8	13.6	9.6	13.9	9.7	14.1	10.0	14.7	9.8	15.3	9.5
	40.0	12.6	9.5	12.9	9.7	13.4	9.5	13.7	9.6	14.0	9.9	14.6	9.7	15.1	9.4
	43.0	12.4	9.4	12.7	9.6	13.3	9.5	13.6	9.6	13.8	9.9	14.4	9.6	15.0	9.4

2-4.Heating Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PLFY-P-VLMD-A

SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15.0	20.0	25.0	27.0
	˚CWB	SHC	SHC	SHC	SHC
20	-15.0	1.7	1.6	1.6	1.6
	-10.0	1.9	1.9	1.9	1.7
	-5.0	2.1	2.1	2.0	1.7
	0.0	2.4	2.4	2.0	1.7
	2.5	2.5	2.5	2.0	1.7
	6.0	2.5	2.5	2.0	1.7
	7.5	2.6	2.5	2.0	1.7
	10.0	2.8	2.5	2.0	1.7
	12.5	3.0	2.5	2.0	1.7
	15.5	3.0	2.5	2.0	1.7
25	-15.0	2.1	2.1	2.1	2.1
	-10.0	2.4	2.4	2.4	2.2
	-5.0	2.7	2.7	2.5	2.2
	0.0	3.1	3.0	2.5	2.2
	2.5	3.2	3.2	2.5	2.2
	6.0	3.2	3.2	2.5	2.2
	7.5	3.4	3.2	2.5	2.2
	10.0	3.6	3.2	2.5	2.2
	12.5	3.8	3.2	2.5	2.2
	15.5	3.9	3.2	2.5	2.2
32	-15.0	2.7	2.6	2.6	2.6
	-10.0	3.1	3.0	3.0	2.8
	-5.0	3.4	3.4	3.1	2.8
	0.0	3.8	3.8	3.1	2.8
	2.5	4.0	4.0	3.1	2.8
	6.0	4.0	4.0	3.1	2.8
	7.5	4.2	4.0	3.1	2.8
	10.0	4.5	4.0	3.1	2.8
	12.5	4.8	4.0	3.1	2.8
	15.5	4.8	4.0	3.1	2.8
40	-15.0	3.3	3.3	3.3	3.3
	-10.0	3.8	3.8	3.7	3.5
	-5.0	4.3	4.2	3.9	3.5
	0.0	4.8	4.7	3.9	3.5
	2.5	5.0	5.0	3.9	3.5
	6.0	5.1	5.0	3.9	3.5
	7.5	5.3	5.0	3.9	3.5
	10.0	5.6	5.0	3.9	3.5
	12.5	6.0	5.0	3.9	3.5
	15.5	6.1	5.0	3.9	3.5
50	-15.0	4.2	4.2	4.1	4.1
	-10.0	4.8	4.8	4.7	4.3
	-5.0	5.4	5.3	4.9	4.3
	0.0	6.0	5.9	4.9	4.3
	2.5	6.3	6.2	4.9	4.3
	6.0	6.4	6.3	4.9	4.3
	7.5	6.6	6.3	4.9	4.3
	10.0	7.1	6.3	4.9	4.3
	12.5	7.5	6.3	4.9	4.3
	15.5	7.6	6.3	4.9	4.3

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15.0	20.0	25.0	27.0
	˚CWB	SHC	SHC	SHC	SHC
63	-15.0	5.4	5.3	5.2	5.2
	-10.0	6.1	6.0	6.0	5.5
	-5.0	6.9	6.8	6.2	5.5
	0.0	7.6	7.5	6.2	5.5
	2.5	8.0	7.9	6.2	5.5
	6.0	8.1	8.0	6.2	5.5
	7.5	8.4	8.0	6.2	5.5
	10.0	9.0	8.0	6.2	5.5
	12.5	9.6	8.0	6.2	5.5
	15.5	9.7	8.0	6.2	5.5
80	-15.0	6.7	6.6	6.5	6.5
	-10.0	7.6	7.5	7.4	6.9
	-5.0	8.6	8.5	7.8	6.9
	0.0	9.5	9.4	7.8	6.9
	2.5	10.0	9.9	7.8	6.9
	6.0	10.1	10.0	7.8	6.9
	7.5	10.5	10.0	7.8	6.9
	10.0	11.2	10.0	7.8	6.9
	12.5	12.0	10.0	7.8	6.9
	15.5	12.1	10.0	7.8	6.9
100	-15.0	8.4	8.2	8.2	8.1
	-10.0	9.6	9.4	9.3	8.6
	-5.0	10.7	10.6	9.8	8.6
	0.0	11.9	11.8	9.8	8.6
	2.5	12.5	12.4	9.8	8.6
	6.0	12.6	12.5	9.8	8.6
	7.5	13.2	12.5	9.8	8.6
	10.0	14.1	12.5	9.8	8.6
	12.5	15.0	12.5	9.8	8.6
	15.5	15.1	12.5	9.8	8.6
125	-15.0	10.7	10.6	10.5	10.4
	-10.0	12.2	12.1	11.9	11.0
	-5.0	13.7	13.6	12.5	11.0
	0.0	15.3	15.1	12.5	11.0
	2.5	16.0	15.8	12.5	11.0
	6.0	16.2	16.0	12.5	11.0
	7.5	16.8	16.0	12.5	11.0
	10.0	18.0	16.0	12.5	11.0
	12.5	19.1	16.0	12.5	11.0
	15.5	19.4	16.0	12.5	11.0

2-5.Cooling capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PLFY-P-VLMD-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	20.0	1813	1488	1901	1554	2049	1552	2157	1601	2192	1653	2320	1630	2459	1606
	22.5	1813	1488	1894	1550	2031	1544	2131	1590	2164	1642	2290	1619	2424	1595
	25.0	1799	1482	1876	1542	2008	1534	2105	1580	2137	1631	2259	1608	2389	1583
	27.5	1784	1475	1857	1534	1985	1525	2079	1569	2110	1621	2229	1597	2354	1571
	30.0	1770	1468	1839	1526	1962	1515	2052	1559	2083	1610	2198	1586	2319	1560
	32.5	1755	1462	1821	1517	1939	1505	2026	1548	2055	1599	2167	1575	2285	1548
	35.0	1741	1455	1802	1509	1916	1496	2000	1538	2028	1589	2137	1564	2250	1537
	37.5	1726	1448	1784	1501	1893	1486	1974	1528	2001	1578	2106	1553	2215	1525
	40.0	1712	1442	1766	1493	1870	1477	1948	1517	1974	1568	2076	1542	2180	1514
	43.0	1695	1434	1744	1483	1843	1465	1916	1505	1941	1555	2039	1529	2139	1500
25	20.0	2266	1705	2377	1775	2561	1775	2697	1825	2740	1877	2900	1850	3073	1821
	22.5	2266	1705	2367	1771	2539	1765	2664	1811	2705	1862	2862	1835	3030	1805
	25.0	2248	1697	2345	1760	2510	1753	2631	1797	2671	1848	2824	1820	2986	1790
	27.5	2230	1688	2322	1749	2482	1740	2598	1783	2637	1834	2786	1805	2943	1774
	30.0	2212	1679	2299	1738	2453	1727	2566	1769	2603	1820	2748	1791	2899	1759
	32.5	2194	1670	2276	1727	2424	1714	2533	1755	2569	1805	2709	1776	2856	1744
	35.0	2176	1661	2253	1716	2395	1701	2500	1741	2535	1791	2671	1761	2812	1728
	37.5	2158	1653	2230	1705	2367	1689	2467	1728	2501	1777	2633	1747	2769	1713
	40.0	2140	1644	2207	1695	2338	1676	2434	1714	2467	1763	2595	1732	2725	1698
	43.0	2118	1633	2180	1682	2304	1661	2395	1698	2426	1747	2549	1715	2673	1680
32	20.0	2855	2075	2995	2158	3227	2160	3398	2216	3452	2275	3654	2242	3872	2206
	22.5	2855	2075	2983	2152	3199	2147	3357	2198	3409	2256	3606	2222	3817	2185
	25.0	2833	2064	2954	2138	3163	2130	3315	2179	3366	2237	3558	2203	3763	2165
	27.5	2810	2053	2925	2124	3127	2113	3274	2161	3323	2219	3510	2183	3708	2145
	30.0	2787	2041	2896	2109	3091	2096	3233	2143	3280	2200	3462	2164	3653	2125
	32.5	2765	2030	2868	2095	3055	2080	3191	2125	3237	2182	3414	2145	3598	2104
	35.0	2742	2018	2839	2081	3018	2063	3150	2107	3194	2164	3366	2126	3544	2085
	37.5	2719	2007	2810	2067	2982	2047	3109	2089	3151	2145	3318	2107	3489	2065
	40.0	2696	1995	2781	2053	2946	2030	3067	2072	3109	2127	3270	2088	3434	2045
	43.0	2669	1982	2746	2036	2902	2011	3018	2050	3057	2105	3212	2066	3368	2021
40	20.0	3625	2672	3803	2779	4098	2781	4315	2855	4383	2933	4640	2891	4917	2846
	22.5	3625	2672	3788	2772	4063	2765	4262	2832	4329	2910	4579	2866	4848	2820
	25.0	3597	2658	3751	2754	4017	2744	4210	2809	4274	2886	4518	2842	4778	2794
	27.5	3568	2643	3715	2736	3971	2723	4157	2787	4220	2863	4457	2818	4708	2769
	30.0	3539	2629	3678	2718	3925	2702	4105	2764	4165	2840	4396	2794	4639	2744
	32.5	3511	2614	3641	2701	3879	2681	4052	2742	4111	2817	4335	2770	4569	2719
	35.0	3482	2600	3605	2683	3833	2660	4000	2719	4056	2794	4274	2746	4500	2694
	37.5	3453	2586	3568	2665	3787	2639	3948	2697	4002	2771	4213	2723	4430	2669
	40.0	3424	2572	3531	2648	3741	2619	3895	2674	3947	2748	4152	2699	4361	2644
	43.0	3389	2555	3487	2627	3686	2594	3832	2648	3882	2721	4078	2671	4277	2614
50	20.0	4532	3293	4753	3424	5123	3427	5393	3516	5479	3609	5800	3557	6146	3500
	22.5	4532	3293	4735	3415	5078	3406	5328	3487	5411	3580	5724	3526	6059	3467
	25.0	4496	3275	4689	3392	5021	3380	5262	3458	5343	3550	5648	3495	5972	3435
	27.5	4460	3257	4643	3370	4963	3353	5197	3429	5275	3521	5571	3464	5886	3403
	30.0	4424	3239	4597	3347	4906	3327	5131	3401	5207	3491	5495	3434	5799	3371
	32.5	4388	3221	4552	3325	4848	3300	5066	3372	5139	3462	5419	3403	5712	3339
	35.0	4352	3202	4506	3302	4791	3274	5000	3344	5070	3433	5342	3373	5625	3307
	37.5	4316	3184	4460	3280	4734	3248	4934	3315	5002	3404	5266	3343	5538	3276
	40.0	4280	3166	4414	3258	4676	3222	4869	3287	4934	3375	5190	3313	5451	3244
	43.0	4237	3145	4359	3231	4607	3190	4790	3253	4852	3341	5098	3278	5347	3207
63	20.0	5710	4192	5989	4360	6455	4363	6796	4479	6904	4600	7309	4534	7744	4462
	22.5	5710	4192	5966	4349	6399	4337	6713	4443	6818	4563	7212	4495	7635	4422
	25.0	5665	4170	5908	4321	6326	4304	6630	4407	6732	4526	7116	4457	7525	4381
	27.5	5620	4147	5851	4293	6254	4271	6548	4371	6646	4490	7020	4419	7416	4341
	30.0	5574	4124	5793	4264	6181	4238	6465	4335	6560	4453	6924	4381	7306	4301
	32.5	5529	4102	5735	4236	6109	4205	6383	4299	6475	4417	6828	4343	7197	4262
	35.0	5484	4079	5677	4208	6037	4172	6300	4264	6389	4380	6731	4305	7087	4222
	37.5	5438	4056	5620	4181	5964	4140	6217	4229	6303	4344	6635	4268	6978	4183
	40.0	5393	4034	5562	4153	5892	4107	6135	4193	6217	4308	6539	4230	6868	4144
	43.0	5338	4007	5493	4120	5805	4068	6036	4151	6114	4265	6424	4186	6737	4097

Cooling capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PLFY-P-VLMD-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
80	20.0	7251	5247	7605	5454	8196	5460	8629	5601	8767	5748	9281	5664	9834	5573
	22.5	7251	5247	7576	5440	8125	5427	8525	5554	8658	5700	9159	5614	9695	5521
	25.0	7194	5218	7503	5403	8033	5384	8420	5507	8549	5652	9036	5564	9556	5469
	27.5	7136	5189	7429	5367	7941	5341	8315	5461	8440	5605	8914	5515	9417	5417
	30.0	7079	5159	7356	5331	7849	5298	8210	5415	8331	5557	8792	5466	9278	5365
	32.5	7021	5130	7283	5294	7758	5256	8105	5369	8222	5510	8670	5417	9139	5314
	35.0	6963	5101	7209	5258	7666	5214	8000	5323	8113	5464	8548	5369	9000	5263
	37.5	6906	5072	7136	5222	7574	5171	7895	5277	8004	5417	8426	5320	8861	5212
	40.0	6848	5043	7063	5187	7482	5130	7790	5232	7895	5371	8304	5272	8722	5162
	43.0	6779	5008	6975	5144	7371	5079	7664	5178	7764	5315	8157	5215	8555	5102
100	20.0	9063	6879	9507	7163	10245	7162	10787	7364	10958	7577	11601	7469	12293	7353
	22.5	9063	6879	9470	7146	10157	7122	10656	7308	10822	7520	11448	7410	12119	7291
	25.0	8993	6844	9378	7102	10042	7071	10525	7253	10686	7464	11296	7351	11945	7229
	27.5	8920	6809	9287	7058	9927	7020	10393	7198	10550	7407	11143	7292	11771	7167
	30.0	8848	6774	9195	7015	9812	6969	10262	7143	10413	7351	10990	7234	11597	7106
	32.5	8776	6739	9103	6972	9697	6918	10131	7088	10277	7295	10837	7175	11423	7045
	35.0	8704	6704	9012	6929	9582	6868	10000	7033	10141	7239	10685	7117	11250	6984
	37.5	8632	6669	8920	6886	9467	6818	9869	6978	10005	7183	10532	7060	11076	6923
	40.0	8560	6634	8828	6843	9352	6767	9738	6924	9868	7128	10379	7002	10902	6863
	43.0	8474	6592	8718	6792	9214	6707	9580	6859	9705	7062	10196	6934	10693	6791
125	20.0	11329	8412	11883	8753	12807	8756	13484	8994	13698	9243	14501	9109	15366	8966
	22.5	11329	8412	11837	8731	12696	8705	13320	8923	13527	9171	14310	9034	15149	8887
	25.0	11241	8368	11723	8675	12552	8640	13156	8852	13357	9098	14119	8959	14931	8808
	27.5	11151	8323	11608	8620	12408	8575	12992	8781	13187	9026	13929	8884	14714	8729
	30.0	11060	8279	11494	8565	12265	8510	12828	8711	13017	8955	13738	8809	14497	8651
	32.5	10970	8234	11379	8510	12121	8446	12664	8641	12846	8883	13547	8735	14279	8573
	35.0	10880	8189	11265	8455	11977	8381	12500	8572	12676	8812	13356	8661	14062	8495
	37.5	10790	8145	11150	8400	11834	8317	12336	8502	12506	8741	13165	8588	13845	8418
	40.0	10700	8101	11035	8346	11690	8253	12172	8433	12335	8671	12974	8515	13627	8342
	43.0	10592	8048	10898	8280	11518	8177	11975	8350	12131	8586	12745	8427	13367	8250

2-6.Heating capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PLFY-P-VLMD-A

SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚CWB	SHC	SHC	SHC	SHC
20	-15.0	1555	1532	1509	1500
	-10.0	1774	1751	1728	1601
	-5.0	1994	1970	1809	1601
	0.0	2213	2190	1809	1601
	2.5	2322	2250	1809	1601
	6.0	2343	2250	1809	1601
	7.5	2441	2250	1809	1601
	10.0	2605	2250	1809	1601
	12.5	2769	2250	1809	1601
	15.5	2807	2250	1809	1601
25	-15.0	1935	1907	1878	1866
	-10.0	2208	2179	2151	1992
	-5.0	2481	2452	2252	1992
	0.0	2754	2725	2252	1992
	2.5	2890	2800	2252	1992
	6.0	2915	2800	2252	1992
	7.5	3038	2800	2252	1992
	10.0	3242	2800	2252	1992
	12.5	3446	2800	2252	1992
	15.5	3493	2800	2252	1992
32	-15.0	2454	2417	2381	2366
	-10.0	2800	2763	2727	2525
	-5.0	3146	3109	2855	2525
	0.0	3491	3455	2855	2525
	2.5	3664	3550	2855	2525
	6.0	3696	3550	2855	2525
	7.5	3852	3550	2855	2525
	10.0	4111	3550	2855	2525
	12.5	4370	3550	2855	2525
	15.5	4428	3550	2855	2525
40	-15.0	3111	3064	3018	2999
	-10.0	3549	3503	3456	3201
	-5.0	3987	3941	3619	3201
	0.0	4426	4379	3619	3201
	2.5	4645	4500	3619	3201
	6.0	4686	4500	3619	3201
	7.5	4883	4500	3619	3201
	10.0	5211	4500	3619	3201
	12.5	5539	4500	3619	3201
	15.5	5613	4500	3619	3201
50	-15.0	3871	3813	3755	3732
	-10.0	4416	4359	4301	3984
	-5.0	4962	4904	4503	3984
	0.0	5508	5450	4503	3984
	2.5	5780	5600	4503	3984
	6.0	5831	5600	4503	3984
	7.5	6076	5600	4503	3984
	10.0	6484	5600	4503	3984
	12.5	6893	5600	4503	3984
	15.5	6986	5600	4503	3984

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚CWB	SHC	SHC	SHC	SHC
63	-15.0	4908	4835	4761	4732
	-10.0	5599	5526	5453	5051
	-5.0	6291	6218	5709	5051
	0.0	6983	6910	5709	5051
	2.5	7329	7100	5709	5051
	6.0	7393	7100	5709	5051
	7.5	7704	7100	5709	5051
	10.0	8221	7100	5709	5051
	12.5	8739	7100	5709	5051
	15.5	8857	7100	5709	5051
80	-15.0	6221	6128	6036	5998
	-10.0	7098	7005	6912	6402
	-5.0	7975	7882	7237	6402
	0.0	8852	8759	7237	6402
	2.5	9290	9000	7237	6402
	6.0	9371	9000	7237	6402
	7.5	9765	9000	7237	6402
	10.0	10421	9000	7237	6402
	12.5	11078	9000	7237	6402
	15.5	11227	9000	7237	6402
100	-15.0	7742	7626	7511	7465
	-10.0	8833	8718	8602	7967
	-5.0	9924	9809	9006	7967
	0.0	11015	10900	9006	7967
	2.5	11561	11200	9006	7967
	6.0	11662	11200	9006	7967
	7.5	12152	11200	9006	7967
	10.0	12969	11200	9006	7967
	12.5	13786	11200	9006	7967
	15.5	13971	11200	9006	7967
125	-15.0	9677	9533	9389	9331
	-10.0	11041	10897	10753	9959
	-5.0	12405	12261	11258	9959
	0.0	13769	13625	11258	9959
	2.5	14451	14000	11258	9959
	6.0	14577	14000	11258	9959
	7.5	15190	14000	11258	9959
	10.0	16211	14000	11258	9959
	12.5	17232	14000	11258	9959
	15.5	17464	14000	11258	9959

2-7.Cooling Capacity (In combination with PQRY-P200·250YMF-B)

PLFY-P-VLMD-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Water temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚C	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	10	1914	1536	1980	1589	2105	1576	2200	1618	2229	1667	2354	1643	2486	1616
	20	1844	1503	1908	1557	2029	1543	2120	1586	2148	1635	2268	1611	2396	1585
	30	1740	1455	1800	1508	1914	1495	2000	1538	2026	1588	2140	1565	2260	1540
	40	1514	1352	1566	1405	1665	1393	1740	1437	1763	1487	1862	1467	1966	1444
	45	1427	1313	1476	1366	1569	1354	1640	1399	1661	1449	1755	1429	1853	1408
25	10	2393	1768	2475	1823	2632	1807	2750	1848	2786	1896	2943	1866	3108	1834
	20	2306	1725	2385	1779	2536	1764	2650	1805	2684	1853	2836	1825	2995	1793
	30	2175	1661	2250	1715	2393	1700	2500	1741	2533	1790	2675	1763	2825	1733
	40	1892	1526	1958	1579	2081	1565	2175	1608	2203	1657	2327	1633	2458	1606
	45	1784	1475	1845	1528	1962	1515	2050	1558	2077	1608	2194	1584	2317	1559
32	10	3015	2157	3119	2220	3316	2201	3465	2246	3510	2300	3708	2263	3915	2222
	20	2905	2101	3005	2163	3195	2145	3339	2190	3382	2244	3573	2209	3773	2169
	30	2741	2018	2835	2079	3015	2062	3150	2107	3191	2162	3371	2128	3560	2090
	40	2384	1842	2466	1903	2623	1886	2741	1934	2776	1989	2932	1959	3097	1925
	45	2247	1776	2325	1837	2472	1821	2583	1869	2617	1925	2764	1896	2919	1864
40	10	3828	2775	3960	2857	4211	2833	4400	2893	4457	2965	4708	2918	4972	2866
	20	3689	2704	3816	2786	4058	2762	4240	2823	4295	2895	4537	2849	4791	2799
	30	3480	2599	3600	2681	3828	2658	4000	2719	4052	2792	4280	2749	4520	2701
	40	3028	2379	3132	2460	3330	2439	3480	2502	3525	2575	3724	2537	3932	2494
	45	2854	2297	2952	2377	3139	2356	3280	2420	3323	2495	3510	2458	3706	2417
50	10	4785	3424	4950	3522	5264	3493	5500	3564	5572	3650	5885	3591	6215	3526
	20	4611	3334	4770	3432	5072	3403	5300	3475	5369	3561	5671	3504	5989	3441
	30	4350	3201	4500	3299	4785	3271	5000	3344	5065	3431	5350	3376	5650	3316
	40	3785	2922	3915	3019	4163	2993	4350	3068	4407	3156	4655	3108	4916	3055
	45	3567	2818	3690	2915	3924	2889	4100	2965	4153	3053	4387	3007	4633	2957
63	10	6029	4355	6237	4483	6632	4445	6930	4538	7020	4651	7415	4577	7831	4494
	20	5810	4243	6010	4371	6391	4334	6678	4428	6765	4540	7145	4468	7546	4389
	30	5481	4078	5670	4205	6029	4169	6300	4264	6382	4378	6741	4309	7119	4233
	40	4768	3730	4933	3856	5245	3822	5481	3920	5552	4035	5865	3974	6194	3907
	45	4494	3599	4649	3725	4944	3692	5166	3791	5233	3907	5528	3849	5838	3785
80	10	7656	5456	7920	5613	8422	5566	8800	5677	8914	5813	9416	5719	9944	5615
	20	7378	5312	7632	5468	8115	5422	8480	5534	8590	5670	9074	5579	9582	5479
	30	6960	5099	7200	5254	7656	5209	8000	5323	8104	5460	8560	5373	9040	5278
	40	6055	4651	6264	4804	6661	4762	6960	4880	7050	5019	7447	4942	7865	4857
	45	5707	4484	5904	4636	6278	4595	6560	4714	6645	4854	7019	4781	7413	4700
100	10	9570	7129	9900	7352	10527	7288	11000	7455	11143	7655	11770	7534	12430	7402
	20	9222	6956	9540	7179	10144	7117	10600	7285	10738	7485	11342	7369	11978	7240
	30	8700	6702	9000	6923	9570	6863	10000	7033	10130	7235	10700	7123	11300	7001
	40	7569	6163	7830	6383	8326	6327	8700	6502	8813	6706	9309	6606	9831	6498
	45	7134	5961	7380	6181	7847	6126	8200	6303	8307	6508	8774	6413	9266	6310
125	10	11963	8731	12375	8994	13159	8917	13750	9110	13929	9342	14713	9193	15538	9029
	20	11528	8511	11925	8773	12680	8698	13250	8893	13422	9126	14178	8982	14973	8823
	30	10875	8187	11250	8448	11963	8375	12500	8572	12663	8806	13375	8669	14125	8518
	40	9461	7503	9788	7761	10407	7693	10875	7896	11016	8134	11636	8011	12289	7877
	45	8918	7246	9225	7504	9809	7438	10250	7643	10383	7882	10968	7765	11583	7638

2-8.Heating Capacity (In combination with PQRY-P200·250YMF-B)

PLFY-P-VLMD-A

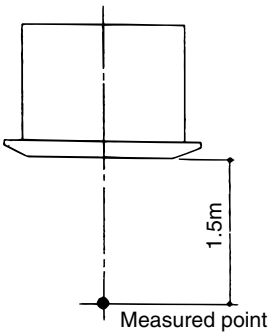
SHC:Sensible heat Capacity(kcal/h)

Unit size	Water temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚C	SHC	SHC	SHC	SHC
20	10	1951	1913	1549	1377
	20	2295	2250	1823	1620
	30	2295	2250	1823	1620
	40	2387	2340	1895	1685
	45	2616	2565	2078	1847
25	10	2428	2380	1928	1714
	20	2856	2800	2268	2016
	30	2856	2800	2268	2016
	40	2970	2912	2359	2097
	45	3256	3192	2586	2298
32	10	3078	3018	2444	2173
	20	3621	3550	2876	2556
	30	3621	3550	2876	2556
	40	3766	3692	2991	2658
	45	4128	4047	3278	2914
40	10	3902	3825	3098	2754
	20	4590	4500	3645	3240
	30	4590	4500	3645	3240
	40	4774	4680	3791	3370
	45	5233	5130	4155	3694
50	10	4855	4760	3856	3427
	20	5712	5600	4536	4032
	30	5712	5600	4536	4032
	40	5940	5824	4717	4193
	45	6512	6384	5171	4596
63	10	6156	6035	4888	4345
	20	7242	7100	5751	5112
	30	7242	7100	5751	5112
	40	7532	7384	5981	5316
	45	8256	8094	6556	5828
80	10	7803	7650	6197	5508
	20	9180	9000	7290	6480
	30	9180	9000	7290	6480
	40	9547	9360	7582	6739
	45	10465	10260	8311	7387
100	10	9710	9520	7711	6854
	20	11424	11200	9072	8064
	30	11424	11200	9072	8064
	40	11881	11648	9435	8387
	45	13023	12768	10342	9193
125	10	12138	11900	9639	8568
	20	14280	14000	11340	10080
	30	14280	14000	11340	10080
	40	14851	14560	11794	10483
	45	16279	15960	12928	11491

3. Sound levels

3-1. Noise level

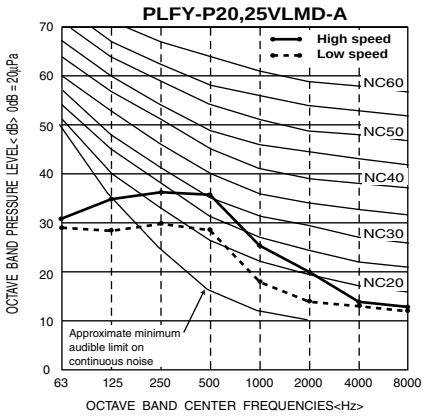
Casette ceiling (VLMD-A series)

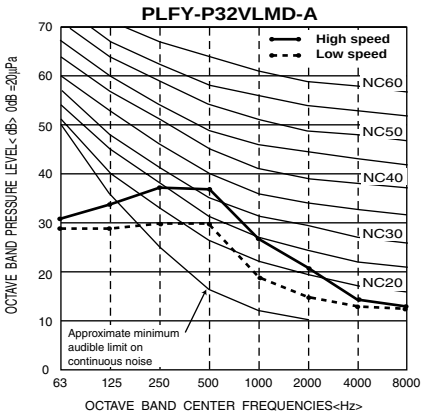


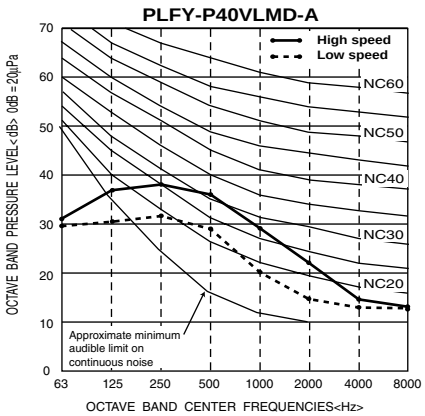
Noise level at anechoic room
(Low-Middle2-Middle1-High) Unit : dB(A)

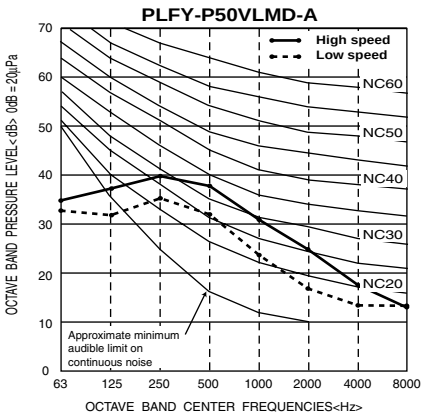
Model	Noise level (A weighted)
PLFY-P20VLMD-A PLFY-P25VLMD-A	28-30-33-35
PLFY-P32VLMD-A	29-31-34-36
PLFY-P40VLMD-A	29-32-34-36
PLFY-P50VLMD-A	32-34-36-38
PLFY-P63VLMD-A	32-34-37-39
PLFY-P80VLMD-A	36-38-41-43
PLFY-P100VLMD-A	37-39-41-43
PLFY-P125VLMD-A	40-42-44-46

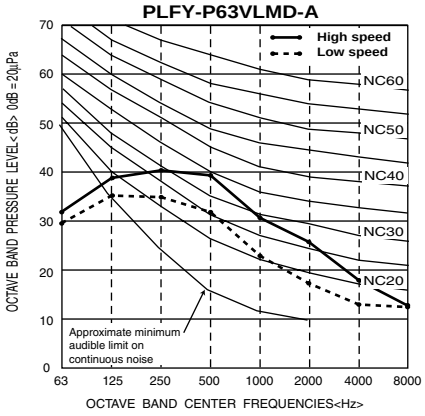
3-2. NC curves

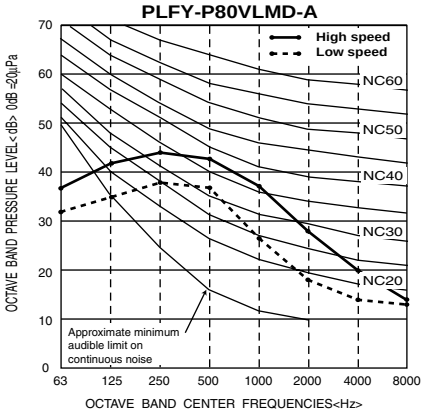


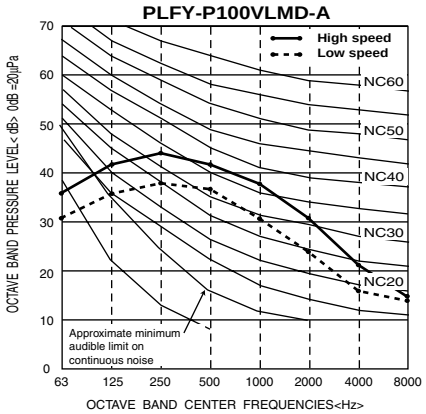


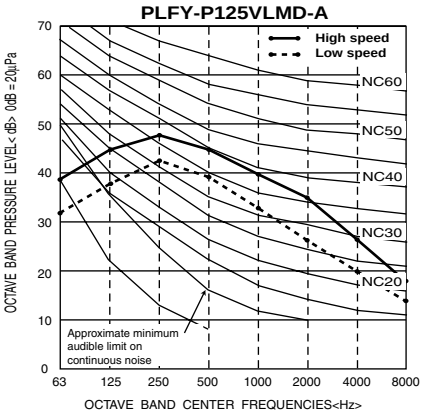




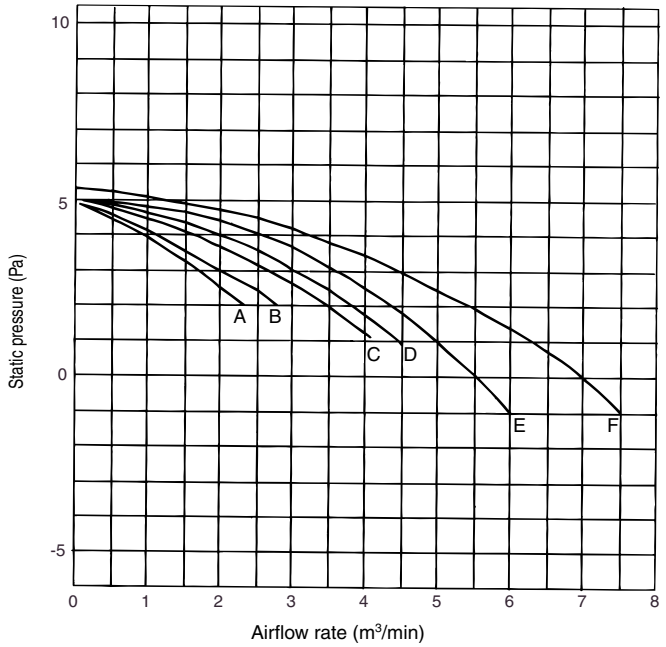






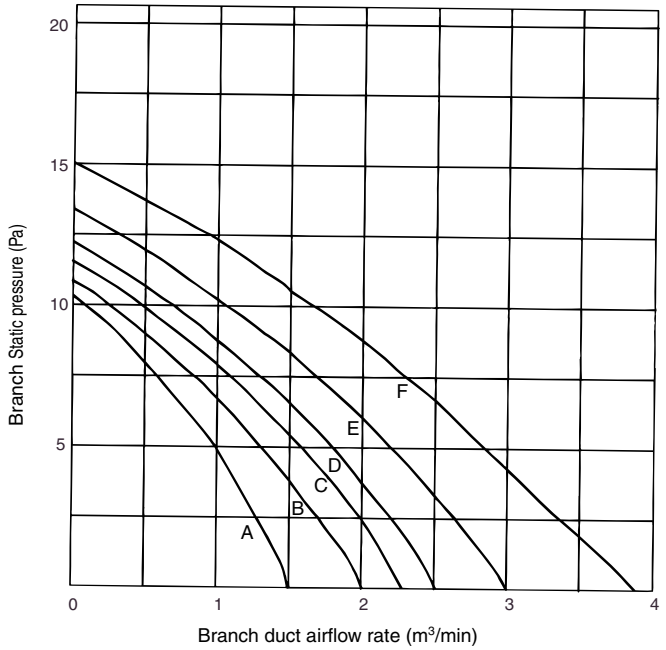


3-3. OA Intake-static pressure curve



A : 20,25,32
B : 40,50
C : 63
D : 80
E : 100
F : 125

3-4. Branch duct Intake-static pressure curve



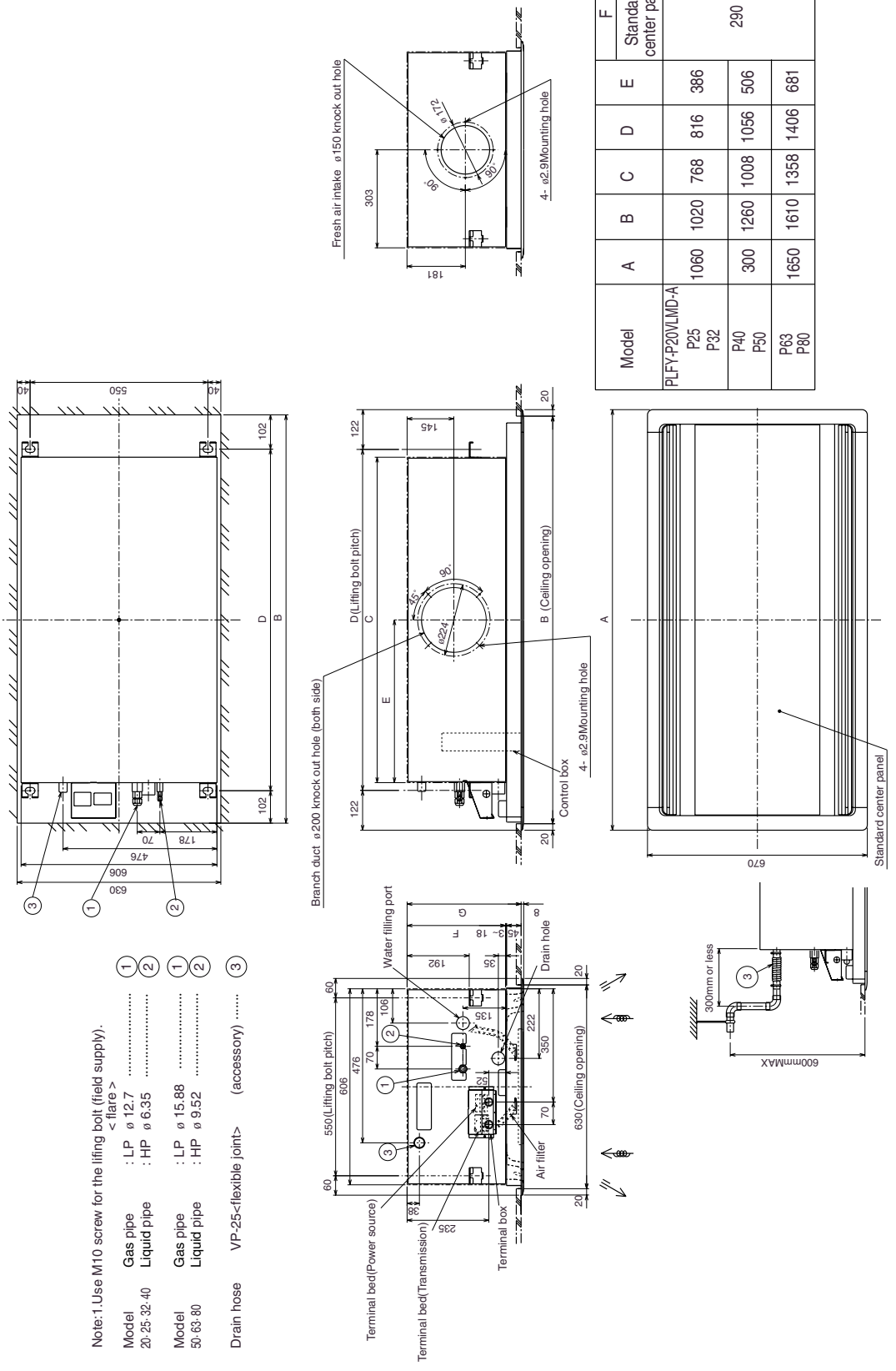
A : 20,25,32
B : 40,50
C : 63
D : 80
E : 100
F : 125

4. External Dimensions

PLFY-P20, 25, 32, 40, 50, 63, 80VLMD-A

Unit : mm

Model	A	B	C	D	E	F Standard center panel	G Standard center panel
PLFY-P20VLMD-A P25 P32	1060	1020	768	816	386	290	338~353
P40 P50	300	1260	1008	1056	506		
P63 P80	1650	1610	1358	1406	681		



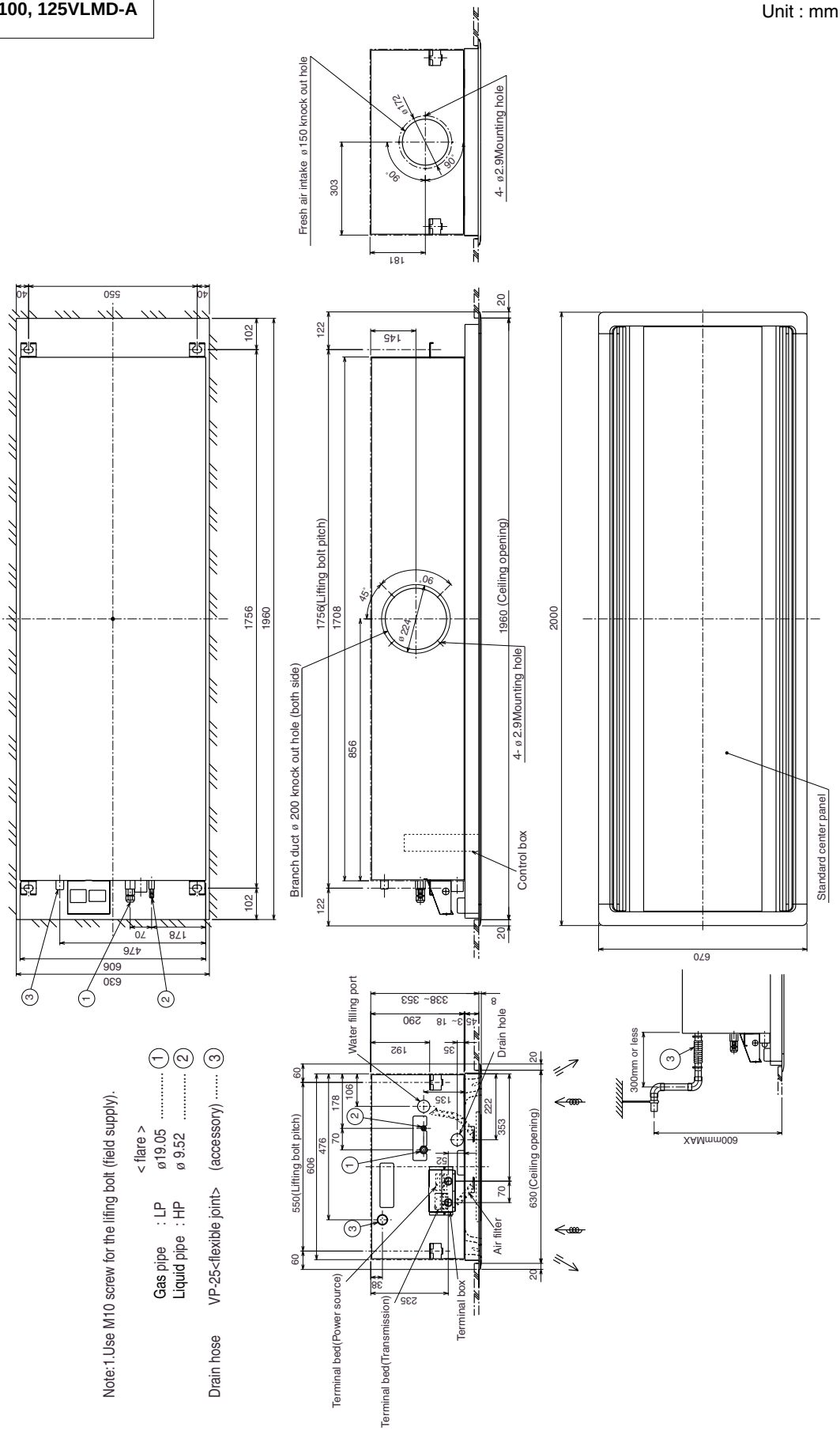
Note:1.Use M10 screw for the lifing bolt (field supply).

		< flare >	
Model	Gas pipe	: LP ø 12.7	①
20·25·32·40	Liquid pipe	: HP ø 6.35	②
Model	Gas pipe	: LP ø 15.88	①
50·63·80	Liquid pipe	: HP ø 9.52	②

Drain hose VP-25<flexible joint> (accessory) ③

PLFY-P100, 125VLMD-A

Unit : mm



Note:1.Use M10 screw for the lifing bolt (field supply).

< flare > ① ②

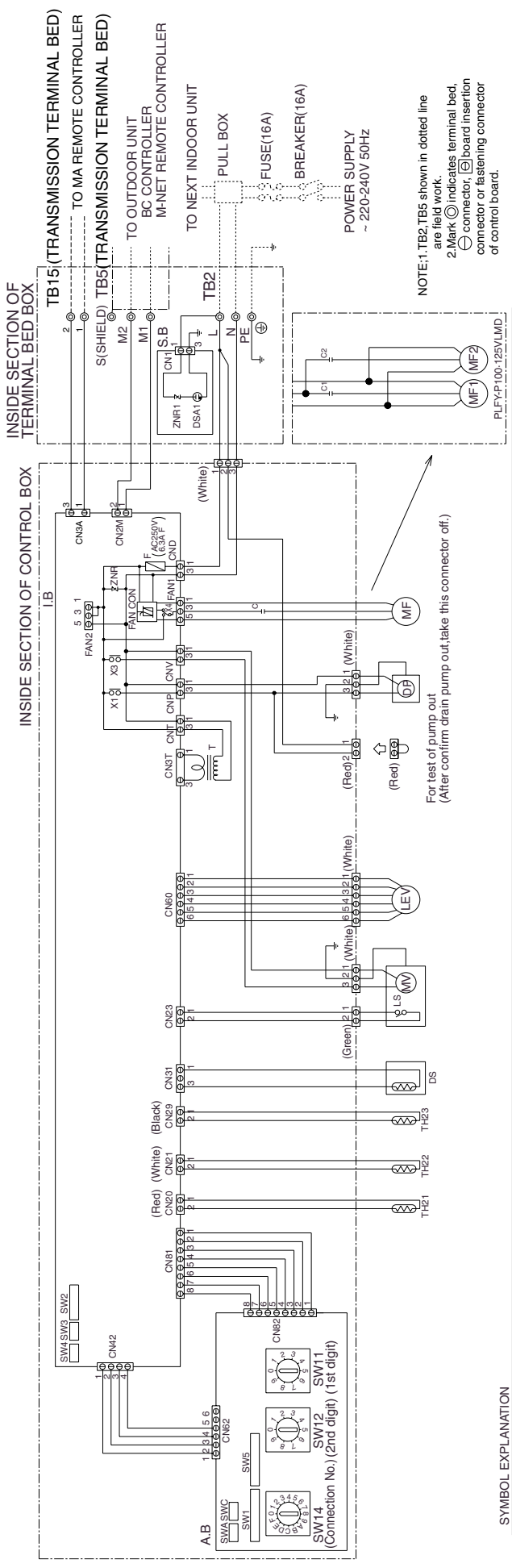
Gas pipe : LP ø19.05 ..... ①

Liquid pipe : HP ø 9.52 ..... ②

Drain hose VP-25<flexible joint> (accessory) ..... ③

PLFY-P-VLMD-A

5. Electrical Wiring Diagram



*Capacitor

MODELS 20/25/32	2.5μF
MODELS 40/80	5.0μF
MODELS 50	4.0μF
MODELS 63	6.0μF
MODELS 100/125	5.0μF × 2

SYMBOL EXPLANATION

SYMBOL	NAME
MF,MF1,MF2	Fan motor
C,C1,C2	* Capacitor(for MF,MF1,MF2)
I.B	Indoor controller board
A.B	Address board
TB2	Power source terminal bed
TB5	Transmission terminal bed
TB15	Transmission terminal bed
F	Fuse AC250V 6.3A F
T	Transformer
DP	Dorain pump

SYMBOL	NAME
LEV	Electronic linear expan.valve
S.B	Surge absorber board
LS	Limit switch (MV built in)
MV	Motor for vane (with limit switch)
DS	Drain sensor
TH21	Thermistor (inlet temp.detection)
TH22	Thermistor (pipe temp.detection / liquid)
TH23	Thermistor (pipe temp.detection / gas)
SW11(A.B)	Switch (1st digit address set)
SW12(A.B)	Switch (2nd digit address set)

SYMBOL	NAME
SW14(A.B)	Switch (connection No.set)
SW1(A.B)	Switch (for mode selection)
SW2(I.B)	Switch (for capacity code)
SW3(I.B)	Switch (for mode selection)
SW4(I.B)	Switch (for model selection)
SW5(A.B)	Switch (for voltage selection)
SWA(A.B)	Switch (option parts)
SWC(A.B)	Switch (option parts)
X1,X3,X4	Aux.relay

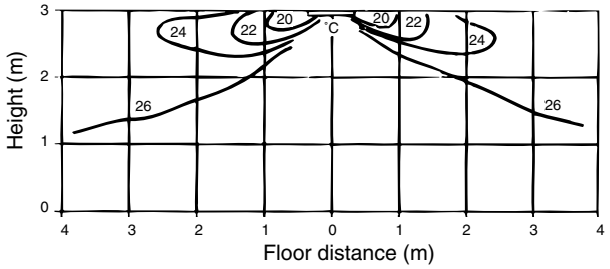
PLFY-P-VLMD-A

6. Temperature/Airflow distribution

●Temperature distribution

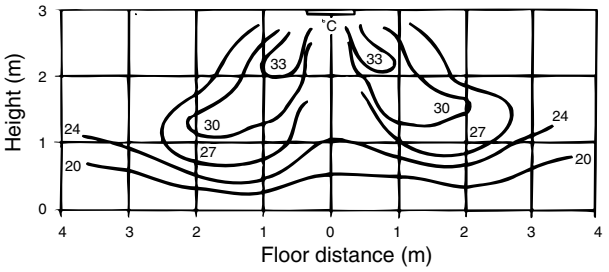
<Cooling mode>

Flow angle : 20˚ Room temp. : 27˚C

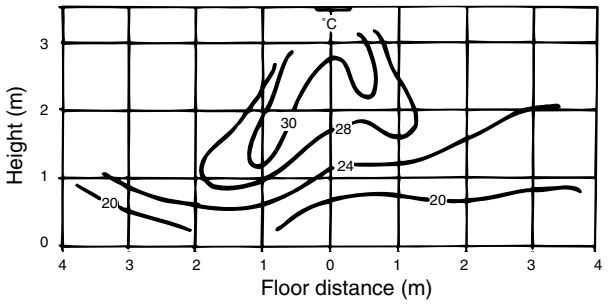


<Heating mode>

Flow angle : 70˚ Room temp. : 20˚C



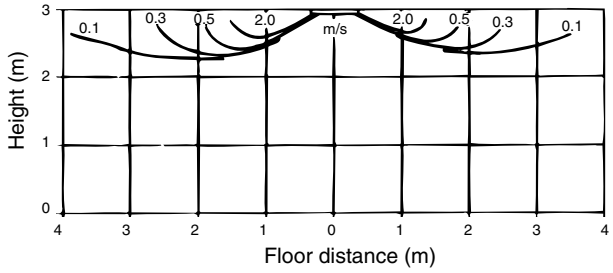
Airflow rate : Low Flow angle : 70˚ Room temp. : 21˚C



● Airflow distribution

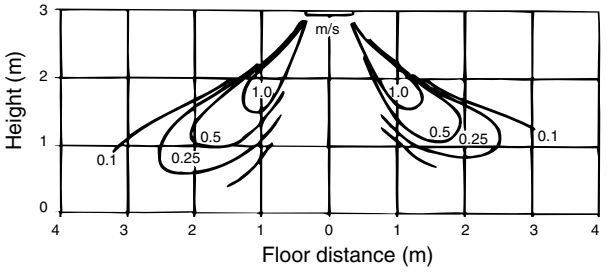
<Cooling mode>

Flow angle : 20˚ Room temp. : 27˚C



<Heating mode>

Flow angle : 70˚ Room temp. : 20˚C



PLFY-P-VLMD-A

7. Options

Description	Model	Applicable capacity
Decoration panel	CMP-32LW-F	P20/P25/P32
	CMP-40LW-F	P40/P50
	CMP-63LW-F	P63/P80
	CMP-125LW-F	P100/P125

Cassette ceiling(4-way flow) PLFY-P-VKM-A PLFY-P-VAM-A

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1. Specifications

				PLFY-P32VKM-A	PLFY-P40VKM-A	PLFY-P50VKM-A	PLFY-P63VKM-A
Power source				~ 220-240V 50Hz / ~ 220V 60Hz			
Cooling capacity	※1		kW	3.6	4.5	5.6	7.1
	※2		kcal/h	3,150	4,000	5,000	6,300
Heating capacity	※1		kW	4.0	5.0	6.3	8.0
Power consumption		Cooling	kW	0.13		0.14	0.15
		Heating	kW	0.13		0.14	0.15
Current		Cooling	A	0.60		0.64	0.68
		Heating	A	0.60		0.64	0.68
External finish(Munsel No.)				Panel : 0.70Y 8.59/0.97			
Dimension ※3		Height	mm	298(30)			
		Width	mm	660(760)			
		Depth	mm	660(760)			
Net weight ※3			kg	19(3.7)			20(3.7)
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)			
Fan	Type			Turbo fan			
	Airflow rate ※3 (Low-Mid2-Mid1-High)		m^3/min	13-14-14.5-15		13-14-15-16	14-15-16-17
	External static pressure		Pa	0			
Motor	Type			Single phase induction motor			
	Output		kW	0.030			
Air filter				PP Honeycomb			
Refrigerant pipe dimension		Gas (Flare)	mm	ø 12.7		ø 15.88	
		Liquid (Flare)	mm	ø 6.35		ø 9.52	
Drain pipe dimension				VP-25			
Noise level (Lo-Mid2-Mid1-Hi) ※3			dB(A)	31-32.5-34-35		32-34-35.5-37	35-36.5-38-39

				PLFY-P80VAM-A	PLFY-P100VAM-A	PLFY-P125VAM-A
Power source				~ 220-240V 50Hz / ~ 220V 60Hz		
Cooling capacity	※1		kW	9.0	11.2	14.0
	※2		kcal/h	8,000	10,000	12,500
Heating capacity	※1		kW	10.0	12.5	16.0
Power consumption		Cooling	kW	0.18	0.30	0.34
		Heating	kW	0.18	0.30	0.34
Current		Cooling	A	0.86	1.43	1.64
		Heating	A	0.86	1.43	1.64
External finish(Munsel No.)				Panel : 0.70Y 8.59/0.97		
Dimension ※3		Height	mm	258(30)	298(30)	
		Width	mm	840(950)		
		Depth	mm	840(950)		
Net weight ※3			kg	24(5)	30(5)	30(5)
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)		
Fan	Type			Turbo fan		
	Airflow rate ※3 (Low-Mid2-Mid1-High)		m^3/min	16-18-20-22	20-23-26-28	22-25-28-30
	External static pressure		Pa	0		
Motor	Type			Single phase induction motor		
	Output		kW	0.070	0.120	
Air filter				PP Honeycomb		
Refrigerant pipe dimension		Gas (Flare)	mm	ø 15.88	ø 19.05	
		Liquid (Flare)	mm	ø9.52		
Drain pipe dimension				VP-25		
Noise level (Lo-Mid2-Mid1-Hi) ※3			dB(A)	30-32-35-37	33-36-39-41	35-38-41-43

Note: ※1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19˚CWB,Outdoor 35˚CDB
Heating : Indoor 20˚CDB,Outdoor 7˚CDB/6˚CWB
※2 Cooling capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19.5˚CWB,Outdoor 35˚CDB (WR2: water 30˚C)
※3 External dimension/ net weight are shown in (unit/panel) , and airflow rate/noise level are in (low-middle2-middle1-high).

2. Capacity tables

2-1.Cooling Capacity (In combination with PUMY-125YM(A))

PLFY-P-VKM-AVAM-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.							
		23˚CDB 16˚CWB		25˚CDB 18˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC
32	20.0	3.6	2.7	3.7	2.8	4.0	2.8	4.2	2.9
(3.6)	22.5	3.5	2.7	3.7	2.8	4.0	2.8	4.2	2.9
	25.0	3.5	2.7	3.7	2.8	3.9	2.8	4.1	2.8
	27.5	3.4	2.6	3.6	2.8	3.9	2.7	4.1	2.8
	30.0	3.4	2.6	3.6	2.7	3.8	2.7	4.1	2.8
	32.5	3.3	2.6	3.6	2.7	3.8	2.7	4.0	2.8
	35.0	3.3	2.6	3.5	2.7	3.7	2.7	4.0	2.8
	37.5	3.2	2.5	3.5	2.7	3.7	2.6	3.9	2.7
	40.0	3.2	2.5	3.4	2.7	3.6	2.6	3.9	2.7
	46.0	3.1	2.5	3.3	2.6	3.5	2.6	3.7	2.7
40	20.0	4.5	3.4	4.7	3.5	5.0	3.5	5.3	3.6
(4.5)	22.5	4.4	3.4	4.6	3.5	5.0	3.5	5.2	3.6
	25.0	4.3	3.3	4.6	3.5	4.9	3.5	5.2	3.6
	27.5	4.3	3.3	4.6	3.5	4.9	3.5	5.1	3.6
	30.0	4.2	3.3	4.5	3.5	4.8	3.4	5.1	3.5
	32.5	4.2	3.3	4.4	3.4	4.7	3.4	5.0	3.5
	35.0	4.1	3.2	4.4	3.4	4.7	3.4	5.0	3.5
	37.5	4.1	3.2	4.3	3.4	4.6	3.3	4.9	3.5
	40.0	4.0	3.2	4.3	3.4	4.5	3.3	4.8	3.4
	46.0	3.8	3.1	4.1	3.3	4.3	3.2	4.6	3.4
50	20.0	5.5	4.0	5.8	4.2	6.2	4.1	6.6	4.3
(5.6)	22.5	5.5	4.0	5.8	4.1	6.2	4.1	6.5	4.2
	25.0	5.4	3.9	5.7	4.1	6.1	4.1	6.4	4.2
	27.5	5.3	3.9	5.7	4.1	6.0	4.1	6.4	4.2
	30.0	5.3	3.9	5.6	4.1	5.9	4.0	6.3	4.1
	32.5	5.2	3.8	5.5	4.0	5.9	4.0	6.2	4.1
	35.0	5.1	3.8	5.5	4.0	5.8	3.9	6.2	4.1
	37.5	5.0	3.7	5.4	3.9	5.7	3.9	6.1	4.0
	40.0	5.0	3.7	5.3	3.9	5.6	3.9	6.0	4.0
	46.0	4.8	3.6	5.1	3.8	5.4	3.8	5.8	3.9
63	20.0	7.0	4.9	7.4	5.1	7.9	5.1	8.3	5.2
(7.1)	22.5	6.9	4.9	7.3	5.1	7.8	5.1	8.2	5.2
	25.0	6.9	4.8	7.3	5.1	7.7	5.0	8.2	5.2
	27.5	6.8	4.8	7.2	5.0	7.7	5.0	8.1	5.1
	30.0	6.7	4.7	7.1	5.0	7.5	4.9	8.0	5.1
	32.5	6.6	4.7	7.0	4.9	7.5	4.9	7.9	5.0
	35.0	6.5	4.6	6.9	4.9	7.3	4.8	7.8	5.0
	37.5	6.4	4.6	6.8	4.8	7.2	4.8	7.7	5.0
	40.0	6.3	4.6	6.7	4.8	7.2	4.7	7.6	4.9
	46.0	6.1	4.4	6.5	4.7	6.9	4.6	7.3	4.8
80	20.0	8.9	6.4	9.4	6.7	10.0	6.7	10.6	6.9
(9.0)	22.5	8.8	6.4	9.3	6.7	9.9	6.6	10.4	6.8
	25.0	8.7	6.3	9.2	6.6	9.8	6.6	10.4	6.8
	27.5	8.6	6.3	9.1	6.6	9.7	6.5	10.3	6.7
	30.0	8.5	6.2	9.0	6.5	9.5	6.5	10.2	6.7
	32.5	8.3	6.1	8.9	6.5	9.5	6.4	10.0	6.6
	35.0	8.2	6.1	8.8	6.4	9.3	6.4	9.9	6.6
	37.5	8.1	6.0	8.6	6.4	9.2	6.3	9.8	6.5
	40.0	8.0	6.0	8.6	6.3	9.1	6.2	9.6	6.5
	46.0	7.7	5.8	8.2	6.2	8.7	6.1	9.3	6.3
100	20.0	11.1	8.1	11.6	8.4	12.5	8.4	13.1	8.6
(11.2)	22.5	10.9	8.0	11.5	8.4	12.3	8.3	13.0	8.6
	25.0	10.8	8.0	11.5	8.3	12.2	8.3	12.9	8.5
	27.5	10.7	7.9	11.3	8.3	12.1	8.2	12.8	8.5
	30.0	10.5	7.8	11.2	8.2	11.9	8.1	12.6	8.4
	32.5	10.4	7.7	11.1	8.2	11.8	8.1	12.5	8.4
	35.0	10.2	7.7	10.9	8.1	11.6	8.0	12.3	8.3
	37.5	10.1	7.6	10.8	8.0	11.4	7.9	12.2	8.2
	40.0	10.0	7.5	10.6	7.9	11.3	7.9	12.0	8.1
	46.0	9.6	7.4	10.2	7.8	10.8	7.7	11.5	7.9
125	20.0	13.9	9.7	14.6	10.1	15.6	10.1	16.4	10.3
(14.0)	22.5	13.7	9.6	14.4	10.0	15.4	10.0	16.2	10.2
	25.0	13.5	9.5	14.3	10.0	15.3	9.9	16.1	10.2
	27.5	13.4	9.4	14.2	9.9	15.1	9.8	16.0	10.1
	30.0	13.2	9.3	14.0	9.8	14.9	9.7	15.8	10.0
	32.5	13.0	9.2	13.8	9.7	14.7	9.6	15.6	9.9
	35.0	12.8	9.1	13.7	9.6	14.5	9.5	15.4	9.8
	37.5	12.6	9.0	13.4	9.5	14.3	9.4	15.2	9.8
	40.0	12.5	9.0	13.3	9.4	14.1	9.4	15.0	9.7
	46.0	12.0	8.7	12.8	9.2	13.5	9.1	14.4	9.4

2-2.Heating Capacity (In combination with PUMY-125YM(A))

PLFY-P-VKM-A,VAM-A

SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB		
		15.0	20.0	25.0
	˚CWB	SHC	SHC	SHC
32	-12.0	2.5	2.5	2.5
	-10.0	2.7	2.6	2.6
	-5.0	3.1	3.0	3.0
	0.0	3.5	3.4	3.4
	2.5	3.7	3.7	3.6
	6.0	4.0	4.0	3.9
	7.5	4.2	4.1	4.0
	10.0	4.4	4.4	4.0
	12.5	4.7	4.4	4.0
	15.5	4.9	4.4	4.0
40	-12.0	3.2	3.1	3.1
	-10.0	3.4	3.3	3.2
	-5.0	3.8	3.8	3.7
	0.0	4.3	4.3	4.2
	2.5	4.6	4.6	4.5
	6.0	5.0	5.0	4.9
	7.5	5.2	5.2	5.0
	10.0	5.5	5.5	5.0
	12.5	5.9	5.5	5.0
	15.5	6.2	5.5	5.0
50	-12.0	4.0	3.9	3.9
	-10.0	4.2	4.2	4.1
	-5.0	4.8	4.8	4.7
	0.0	5.5	5.4	5.3
	2.5	5.8	5.8	5.7
	6.0	6.3	6.3	6.2
	7.5	6.6	6.5	6.2
	10.0	7.0	6.9	6.2
	12.5	7.4	7.0	6.2
	15.5	7.7	7.0	6.2
63	-12.0	5.1	5.0	4.9
	-10.0	5.4	5.3	5.2
	-5.0	6.1	6.0	5.9
	0.0	6.9	6.9	6.8
	2.5	7.4	7.3	7.2
	6.0	8.0	8.0	7.9
	7.5	8.3	8.3	7.9
	10.0	8.8	8.8	7.9
	12.5	9.4	8.8	7.9
	15.5	9.8	8.8	7.9

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB		
		15.0	20.0	25.0
	˚CWB	SHC	SHC	SHC
80	-12.0	6.4	6.2	6.1
	-10.0	6.7	6.6	6.5
	-5.0	7.6	7.5	7.4
	0.0	8.7	8.6	8.5
	2.5	9.2	9.2	9.0
	6.0	10.1	10.0	9.9
	7.5	10.4	10.4	9.9
	10.0	11.1	11.0	9.9
	12.5	11.7	11.0	9.9
	15.5	12.3	11.0	9.9
100	-12.0	8.0	7.8	7.7
	-10.0	8.4	8.2	8.1
	-5.0	9.6	9.4	9.3
	0.0	10.9	10.7	10.6
	2.5	11.5	11.4	11.3
	6.0	12.6	12.5	12.3
	7.5	13.0	12.9	12.4
	10.0	13.8	13.7	12.4
	12.5	14.6	13.8	12.4
	15.5	15.4	13.8	12.4
125	-12.0	10.2	10.0	9.8
	-10.0	10.7	10.6	10.4
	-5.0	12.2	12.1	11.9
	0.0	13.9	13.8	13.6
	2.5	14.8	14.7	14.5
	6.0	16.1	16.0	15.8
	7.5	16.7	16.6	15.8
	10.0	17.7	17.6	15.8
	12.5	18.7	17.7	15.8
	15.5	19.7	17.7	15.8

2-3.Cooling Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PLFY-P-VKM-A,VAM-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
32	20.0	3.5	2.7	3.6	2.7	3.7	2.7	3.8	2.7	3.9	2.8	4.0	2.7	4.2	2.6
(3.6)	22.5	3.5	2.7	3.6	2.7	3.7	2.7	3.8	2.7	3.9	2.8	4.0	2.7	4.1	2.6
	25.0	3.5	2.6	3.5	2.7	3.7	2.6	3.7	2.7	3.8	2.8	4.0	2.7	4.1	2.6
	27.5	3.4	2.6	3.5	2.7	3.6	2.6	3.7	2.7	3.8	2.7	3.9	2.7	4.1	2.6
	30.0	3.4	2.6	3.5	2.7	3.6	2.6	3.7	2.6	3.7	2.7	3.9	2.7	4.0	2.6
	32.5	3.3	2.6	3.4	2.7	3.6	2.6	3.6	2.6	3.7	2.7	3.9	2.7	4.0	2.6
	35.0	3.3	2.6	3.4	2.6	3.5	2.6	3.6	2.6	3.7	2.7	3.8	2.6	4.0	2.6
	37.5	3.3	2.6	3.3	2.6	3.5	2.6	3.6	2.6	3.6	2.7	3.8	2.6	3.9	2.6
	40.0	3.2	2.5	3.3	2.6	3.5	2.6	3.5	2.6	3.6	2.7	3.7	2.6	3.9	2.5
	43.0	3.2	2.5	3.3	2.6	3.4	2.5	3.5	2.6	3.6	2.7	3.7	2.6	3.8	2.5
40	20.0	4.4	3.4	4.5	3.5	4.7	3.4	4.8	3.4	4.9	3.5	5.0	3.4	5.2	3.3
(4.5)	22.5	4.4	3.4	4.5	3.4	4.6	3.4	4.7	3.4	4.8	3.5	5.0	3.4	5.2	3.3
	25.0	4.3	3.3	4.4	3.4	4.6	3.3	4.7	3.4	4.8	3.5	5.0	3.4	5.1	3.3
	27.5	4.3	3.3	4.4	3.4	4.5	3.3	4.6	3.4	4.7	3.5	4.9	3.4	5.1	3.3
	30.0	4.2	3.3	4.3	3.4	4.5	3.3	4.6	3.3	4.7	3.5	4.9	3.4	5.0	3.3
	32.5	4.2	3.3	4.3	3.4	4.5	3.3	4.5	3.3	4.6	3.4	4.8	3.4	5.0	3.3
	35.0	4.1	3.2	4.2	3.3	4.4	3.3	4.5	3.3	4.6	3.4	4.8	3.3	5.0	3.3
	37.5	4.1	3.2	4.2	3.3	4.4	3.2	4.5	3.3	4.5	3.4	4.7	3.3	4.9	3.2
	40.0	4.1	3.2	4.1	3.3	4.3	3.2	4.4	3.3	4.5	3.4	4.7	3.3	4.9	3.2
	43.0	4.0	3.2	4.1	3.3	4.3	3.2	4.4	3.2	4.4	3.4	4.6	3.3	4.8	3.2
50	20.0	5.5	4.0	5.6	4.1	5.8	4.0	5.9	4.0	6.0	4.1	6.3	4.0	6.5	3.9
(5.6)	22.5	5.4	3.9	5.5	4.0	5.8	3.9	5.9	4.0	6.0	4.1	6.2	4.0	6.4	3.9
	25.0	5.4	3.9	5.5	4.0	5.7	3.9	5.8	3.9	5.9	4.1	6.2	3.9	6.4	3.8
	27.5	5.3	3.9	5.4	4.0	5.7	3.9	5.8	3.9	5.9	4.0	6.1	3.9	6.3	3.8
	30.0	5.3	3.9	5.4	3.9	5.6	3.9	5.7	3.9	5.8	4.0	6.0	3.9	6.3	3.8
	32.5	5.2	3.8	5.3	3.9	5.5	3.8	5.7	3.9	5.8	4.0	6.0	3.9	6.2	3.8
	35.0	5.2	3.8	5.3	3.9	5.5	3.8	5.6	3.8	5.7	4.0	5.9	3.9	6.2	3.8
	37.5	5.1	3.8	5.2	3.9	5.4	3.8	5.5	3.8	5.7	3.9	5.9	3.8	6.1	3.7
	40.0	5.0	3.7	5.2	3.8	5.4	3.8	5.5	3.8	5.6	3.9	5.8	3.8	6.0	3.7
	43.0	5.0	3.7	5.1	3.8	5.3	3.7	5.4	3.8	5.5	3.9	5.8	3.8	6.0	3.7
63	20.0	7.0	4.9	7.1	5.0	7.4	4.9	7.5	4.9	7.7	5.0	8.0	4.9	8.2	4.7
(7.1)	22.5	6.9	4.9	7.0	4.9	7.3	4.8	7.5	4.8	7.6	5.0	7.9	4.8	8.2	4.7
	25.0	6.8	4.8	7.0	4.9	7.2	4.8	7.4	4.8	7.5	4.9	7.8	4.8	8.1	4.7
	27.5	6.7	4.8	6.9	4.9	7.2	4.8	7.3	4.8	7.5	4.9	7.7	4.8	8.0	4.6
	30.0	6.7	4.7	6.8	4.8	7.1	4.7	7.2	4.7	7.4	4.9	7.7	4.7	8.0	4.6
	32.5	6.6	4.7	6.7	4.8	7.0	4.7	7.2	4.7	7.3	4.8	7.6	4.7	7.9	4.6
	35.0	6.5	4.7	6.7	4.8	7.0	4.7	7.1	4.7	7.2	4.8	7.5	4.7	7.8	4.6
	37.5	6.5	4.6	6.6	4.7	6.9	4.6	7.0	4.6	7.2	4.8	7.5	4.7	7.7	4.5
	40.0	6.4	4.6	6.5	4.7	6.8	4.6	7.0	4.6	7.1	4.8	7.4	4.6	7.7	4.5
	43.0	6.3	4.6	6.4	4.6	6.7	4.6	6.9	4.6	7.0	4.7	7.3	4.6	7.6	4.5
80	20.0	8.8	6.4	9.0	6.5	9.4	6.4	9.5	6.4	9.7	6.6	10.1	6.4	10.4	6.2
(9.0)	22.5	8.7	6.4	8.9	6.5	9.3	6.3	9.5	6.4	9.6	6.6	10.0	6.4	10.4	6.2
	25.0	8.6	6.3	8.8	6.4	9.2	6.3	9.4	6.3	9.5	6.5	9.9	6.4	10.3	6.2
	27.5	8.6	6.3	8.7	6.4	9.1	6.3	9.3	6.3	9.5	6.5	9.8	6.3	10.2	6.1
	30.0	8.5	6.2	8.6	6.4	9.0	6.2	9.2	6.3	9.4	6.5	9.7	6.3	10.1	6.1
	32.5	8.4	6.2	8.6	6.3	8.9	6.2	9.1	6.2	9.3	6.4	9.6	6.3	10.0	6.1
	35.0	8.3	6.1	8.5	6.3	8.8	6.1	9.0	6.2	9.2	6.4	9.5	6.2	9.9	6.0
	37.5	8.2	6.1	8.4	6.2	8.7	6.1	8.9	6.1	9.1	6.3	9.5	6.2	9.8	6.0
	40.0	8.1	6.0	8.3	6.2	8.6	6.1	8.8	6.1	9.0	6.3	9.4	6.1	9.7	6.0
	43.0	8.0	6.0	8.2	6.1	8.5	6.0	8.7	6.1	8.9	6.3	9.3	6.1	9.6	5.9
100	20.0	11.0	8.0	11.2	8.2	11.6	8.0	11.9	8.1	12.1	8.3	12.5	8.1	13.0	7.9
(11.2)	22.5	10.9	8.0	11.1	8.2	11.5	8.0	11.8	8.0	12.0	8.3	12.4	8.1	12.9	7.8
	25.0	10.8	7.9	11.0	8.1	11.4	7.9	11.6	8.0	11.9	8.2	12.3	8.0	12.8	7.8
	27.5	10.6	7.9	10.9	8.1	11.3	7.9	11.5	7.9	11.8	8.2	12.2	8.0	12.7	7.8
	30.0	10.5	7.8	10.8	8.0	11.2	7.8	11.4	7.9	11.6	8.1	12.1	7.9	12.5	7.7
	32.5	10.4	7.8	10.6	7.9	11.1	7.8	11.3	7.8	11.5	8.1	12.0	7.9	12.4	7.7
	35.0	10.3	7.7	10.5	7.9	11.0	7.7	11.2	7.8	11.4	8.1	11.9	7.9	12.3	7.6
	37.5	10.2	7.7	10.4	7.8	10.9	7.7	11.1	7.8	11.3	8.0	11.8	7.8	12.2	7.6
	40.0	10.1	7.6	10.3	7.8	10.8	7.6	11.0	7.7	11.2	8.0	11.6	7.8	12.1	7.6
	43.0	9.9	7.5	10.2	7.7	10.6	7.6	10.8	7.6	11.1	7.9	11.5	7.7	12.0	7.5
125	20.0	13.7	9.6	14.0	9.8	14.6	9.6	14.8	9.6	15.1	9.9	15.7	9.6	16.2	9.3
(14.0)	22.5	13.6	9.6	13.9	9.7	14.4	9.5	14.7	9.5	15.0	9.8	15.5	9.5	16.1	9.2
	25.0	13.4	9.5	13.7	9.7	14.3	9.4	14.6	9.5	14.8	9.7	15.4	9.5	16.0	9.2
	27.5	13.3	9.4	13.6	9.6	14.1	9.4	14.4	9.4	14.7	9.7	15.3	9.4	15.8	9.1
	30.0	13.2	9.3	13.4	9.5	14.0	9.3	14.3	9.3	14.6	9.6	15.1	9.3	15.7	9.1
	32.5	13.0	9.3	13.3	9.4	13.9	9.2	14.1	9.3	14.4	9.5	15.0	9.3	15.5	9.0
	35.0	12.9	9.2	13.2	9.4	13.7	9.2	14.0	9.2	14.3	9.5	14.8	9.2	15.4	9.0
	37.5	12.7	9.1	13.0	9.3	13.6	9.1	13.9	9.1	14.1	9.4	14.7	9.2	15.3	8.9
	40.0	12.6	9.0	12.9	9.2	13.4	9.0	13.7	9.1	14.0	9.4	14.6	9.1	15.1	8.9
	43.0	12.4	9.0	12.7	9.1	13.3	9.0	13.6	9.0	13.8	9.3	14.4	9.1	15.0	8.8

2-4.Heating Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PLFY-P-VKM-A,VAM-A

SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15.0	20.0	25.0	27.0
	˚CWB	SHC	SHC	SHC	SHC
32	-15.0	2.7	2.6	2.6	2.6
	-10.0	3.1	3.0	3.0	2.8
	-5.0	3.4	3.4	3.1	2.8
	0.0	3.8	3.8	3.1	2.8
	2.5	4.0	4.0	3.1	2.8
	6.0	4.0	4.0	3.1	2.8
	7.5	4.2	4.0	3.1	2.8
	10.0	4.5	4.0	3.1	2.8
	12.5	4.8	4.0	3.1	2.8
	15.5	4.8	4.0	3.1	2.8
40	-15.0	3.3	3.3	3.3	3.3
	-10.0	3.8	3.8	3.7	3.5
	-5.0	4.3	4.2	3.9	3.5
	0.0	4.8	4.7	3.9	3.5
	2.5	5.0	5.0	3.9	3.5
	6.0	5.1	5.0	3.9	3.5
	7.5	5.3	5.0	3.9	3.5
	10.0	5.6	5.0	3.9	3.5
	12.5	6.0	5.0	3.9	3.5
	15.5	6.1	5.0	3.9	3.5
50	-15.0	4.2	4.2	4.1	4.1
	-10.0	4.8	4.8	4.7	4.3
	-5.0	5.4	5.3	4.9	4.3
	0.0	6.0	5.9	4.9	4.3
	2.5	6.3	6.2	4.9	4.3
	6.0	6.4	6.3	4.9	4.3
	7.5	6.6	6.3	4.9	4.3
	10.0	7.1	6.3	4.9	4.3
	12.5	7.5	6.3	4.9	4.3
	15.5	7.6	6.3	4.9	4.3
63	-15.0	5.4	5.3	5.2	5.2
	-10.0	6.1	6.0	6.0	5.5
	-5.0	6.9	6.8	6.2	5.5
	0.0	7.6	7.5	6.2	5.5
	2.5	8.0	7.9	6.2	5.5
	6.0	8.1	8.0	6.2	5.5
	7.5	8.4	8.0	6.2	5.5
	10.0	9.0	8.0	6.2	5.5
	12.5	9.6	8.0	6.2	5.5
	15.5	9.7	8.0	6.2	5.5

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15.0	20.0	25.0	27.0
	˚CWB	SHC	SHC	SHC	SHC
80	-15.0	6.7	6.6	6.5	6.5
	-10.0	7.6	7.5	7.4	6.9
	-5.0	8.6	8.5	7.8	6.9
	0.0	9.5	9.4	7.8	6.9
	2.5	10.0	9.9	7.8	6.9
	6.0	10.1	10.0	7.8	6.9
	7.5	10.5	10.0	7.8	6.9
	10.0	11.2	10.0	7.8	6.9
	12.5	12.0	10.0	7.8	6.9
	15.5	12.1	10.0	7.8	6.9
100	-15.0	8.4	8.2	8.2	8.1
	-10.0	9.6	9.4	9.3	8.6
	-5.0	10.7	10.6	9.8	8.6
	0.0	11.9	11.8	9.8	8.6
	2.5	12.5	12.4	9.8	8.6
	6.0	12.6	12.5	9.8	8.6
	7.5	13.2	12.5	9.8	8.6
	10.0	14.1	12.5	9.8	8.6
	12.5	15.0	12.5	9.8	8.6
	15.5	15.1	12.5	9.8	8.6
125	-15.0	10.7	10.6	10.5	10.4
	-10.0	12.2	12.1	11.9	11.0
	-5.0	13.7	13.6	12.5	11.0
	0.0	15.3	15.1	12.5	11.0
	2.5	16.0	15.8	12.5	11.0
	6.0	16.2	16.0	12.5	11.0
	7.5	16.8	16.0	12.5	11.0
	10.0	18.0	16.0	12.5	11.0
	12.5	19.1	16.0	12.5	11.0
	15.5	19.4	16.0	12.5	11.0

2-5.Cooling capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PLFY-P-VKM-A,VAM-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
32	20.0	2855	2215	2995	2308	3227	2307	3398	2374	3452	2445	3654	2411	3872	2374
	22.5	2855	2215	2983	2302	3199	2295	3357	2357	3409	2427	3606	2393	3817	2355
	25.0	2833	2204	2954	2289	3163	2279	3315	2340	3366	2410	3558	2374	3763	2336
	27.5	2810	2193	2925	2275	3127	2263	3274	2323	3323	2392	3510	2356	3708	2317
	30.0	2787	2182	2896	2262	3091	2247	3233	2306	3280	2375	3462	2338	3653	2298
	32.5	2765	2172	2868	2249	3055	2232	3191	2289	3237	2358	3414	2320	3598	2279
	35.0	2742	2161	2839	2235	3018	2216	3150	2272	3194	2340	3366	2302	3544	2260
	37.5	2719	2150	2810	2222	2982	2201	3109	2255	3151	2323	3318	2285	3489	2242
	40.0	2696	2139	2781	2209	2946	2185	3067	2238	3109	2306	3270	2267	3434	2223
	43.0	2669	2126	2746	2193	2902	2166	3018	2218	3057	2285	3212	2246	3368	2201
40	20.0	3625	2821	3803	2940	4098	2939	4315	3025	4383	3116	4640	3072	4917	3026
	22.5	3625	2821	3788	2933	4063	2923	4262	3003	4329	3094	4579	3049	4848	3001
	25.0	3597	2808	3751	2916	4017	2903	4210	2981	4274	3071	4518	3026	4778	2977
	27.5	3568	2794	3715	2899	3971	2883	4157	2960	4220	3049	4457	3003	4708	2953
	30.0	3539	2780	3678	2882	3925	2863	4105	2938	4165	3027	4396	2980	4639	2929
	32.5	3511	2766	3641	2865	3879	2843	4052	2917	4111	3005	4335	2957	4569	2905
	35.0	3482	2753	3605	2848	3833	2823	4000	2895	4056	2983	4274	2935	4500	2881
	37.5	3453	2739	3568	2831	3787	2804	3948	2874	4002	2961	4213	2912	4430	2857
	40.0	3424	2725	3531	2815	3741	2784	3895	2852	3947	2940	4152	2889	4361	2834
	43.0	3389	2709	3487	2794	3686	2760	3832	2827	3882	2914	4078	2863	4277	2806
50	20.0	4532	3322	4753	3454	5123	3457	5393	3548	5479	3644	5800	3591	6146	3535
	22.5	4532	3322	4735	3445	5078	3436	5328	3520	5411	3614	5724	3561	6059	3503
	25.0	4496	3304	4689	3423	5021	3410	5262	3491	5343	3585	5648	3530	5972	3471
	27.5	4460	3286	4643	3400	4963	3384	5197	3462	5275	3556	5571	3500	5886	3439
	30.0	4424	3268	4597	3378	4906	3357	5131	3434	5207	3527	5495	3470	5799	3407
	32.5	4388	3249	4552	3356	4848	3331	5066	3405	5139	3498	5419	3439	5712	3375
	35.0	4352	3231	4506	3333	4791	3305	5000	3377	5070	3469	5342	3410	5625	3344
	37.5	4316	3214	4460	3311	4734	3279	4934	3349	5002	3440	5266	3380	5538	3313
	40.0	4280	3196	4414	3289	4676	3253	4869	3321	4934	3412	5190	3350	5451	3282
	43.0	4237	3174	4359	3263	4607	3222	4790	3288	4852	3377	5098	3315	5347	3244
63	20.0	5710	4063	5989	4220	6455	4227	6796	4332	6904	4441	7309	4376	7744	4306
	22.5	5710	4063	5966	4209	6399	4200	6713	4295	6818	4402	7212	4336	7635	4264
	25.0	5665	4040	5908	4179	6326	4166	6630	4257	6732	4364	7116	4296	7525	4222
	27.5	5620	4016	5851	4150	6254	4131	6548	4220	6646	4326	7020	4256	7416	4180
	30.0	5574	3992	5793	4121	6181	4097	6465	4182	6560	4288	6924	4217	7306	4138
	32.5	5529	3969	5735	4092	6109	4063	6383	4145	6475	4250	6828	4177	7197	4097
	35.0	5484	3945	5677	4063	6037	4029	6300	4109	6389	4212	6731	4138	7087	4056
	37.5	5438	3922	5620	4034	5964	3995	6217	4072	6303	4175	6635	4099	6978	4015
	40.0	5393	3899	5562	4005	5892	3961	6135	4035	6217	4137	6539	4060	6868	3974
	43.0	5338	3871	5493	3971	5805	3921	6036	3992	6114	4093	6424	4014	6737	3926
80	20.0	7251	5334	7605	5548	8196	5551	8629	5699	8767	5854	9281	5769	9834	5678
	22.5	7251	5334	7576	5533	8125	5518	8525	5653	8658	5807	9159	5720	9695	5627
	25.0	7194	5305	7503	5497	8033	5476	8420	5607	8549	5760	9036	5672	9556	5575
	27.5	7136	5276	7429	5462	7941	5434	8315	5562	8440	5714	8914	5623	9417	5525
	30.0	7079	5247	7356	5426	7849	5392	8210	5516	8331	5667	8792	5575	9278	5474
	32.5	7021	5219	7283	5391	7758	5350	8105	5471	8222	5621	8670	5527	9139	5424
	35.0	6963	5190	7209	5355	7666	5309	8000	5426	8113	5575	8548	5479	9000	5374
	37.5	6906	5161	7136	5320	7574	5268	7895	5381	8004	5529	8426	5432	8861	5324
	40.0	6848	5133	7063	5285	7482	5226	7790	5337	7895	5484	8304	5385	8722	5274
	43.0	6779	5098	6975	5243	7371	5177	7664	5283	7764	5429	8157	5328	8555	5215
100	20.0	9063	6734	9507	7007	10245	7009	10787	7200	10958	7400	11601	7293	12293	7179
	22.5	9063	6734	9470	6989	10157	6969	10656	7143	10822	7342	11448	7233	12119	7115
	25.0	8993	6699	9378	6945	10042	6917	10525	7087	10686	7284	11296	7173	11945	7052
	27.5	8920	6663	9287	6901	9927	6865	10393	7030	10550	7227	11143	7113	11771	6989
	30.0	8848	6627	9195	6857	9812	6813	10262	6974	10413	7169	10990	7053	11597	6926
	32.5	8776	6592	9103	6813	9697	6761	10131	6918	10277	7112	10837	6994	11423	6864
	35.0	8704	6556	9012	6769	9582	6710	10000	6863	10141	7055	10685	6935	11250	6802
	37.5	8632	6521	8920	6725	9467	6659	9869	6807	10005	6999	10532	6876	11076	6741
	40.0	8560	6485	8828	6681	9352	6608	9738	6752	9868	6942	10379	6818	10902	6679
	43.0	8474	6443	8718	6629	9214	6547	9580	6686	9705	6875	10196	6748	10693	6606
125	20.0	11329	8037	11883	8348	12807	8362	13484	8569	13698	8782	14501	8653	15366	8513
	22.5	11329	8037	11837	8325	12696	8309	13320	8494	13527	8705	14310	8573	15149	8429
	25.0	11241	7991	11723	8267	12552	8240	13156	8419	13357	8629	14119	8493	14931	8345
	27.5	11151	7944	11608	8208	12408	8171	12992	8344	13187	8553	13929	8414	14714	8262
	30.0	11060	7897	11494	8150	12265	8103	12828	8270	13017	8477	13738	8335	14497	8179
	32.5	10970	7850	11379	8092	12121	8035	12664	8197	12846	8402	13547	8257	14279	8097
	35.0	10880	7804	11265	8035	11977	7967	12500	8123	12676	8327	13356	8179	14062	8015
	37.5	10790	7757	11150	7977	11834	7900	12336	8050	12506	8252	13165	8102	13845	7934
	40.0	10700	7711	11035	7920	11690	7833	12172	7978	12335	8178	12974	8025	13627	7853
	43.0	10592	7655	10898	7852	11518	7753	11975	7891	12131	8089	12745	7933	13367	7757

2-6.Heating capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PLFY-P-VKM-A,VAM-A

SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚CWB	SHC	SHC	SHC	SHC
32	-15.0	2454	2417	2381	2366
	-10.0	2800	2763	2727	2525
	-5.0	3146	3109	2855	2525
	0.0	3491	3455	2855	2525
	2.5	3664	3550	2855	2525
	6.0	3696	3550	2855	2525
	7.5	3852	3550	2855	2525
	10.0	4111	3550	2855	2525
	12.5	4370	3550	2855	2525
	15.5	4428	3550	2855	2525
40	-15.0	3111	3064	3018	2999
	-10.0	3549	3503	3456	3201
	-5.0	3987	3941	3619	3201
	0.0	4426	4379	3619	3201
	2.5	4645	4500	3619	3201
	6.0	4686	4500	3619	3201
	7.5	4883	4500	3619	3201
	10.0	5211	4500	3619	3201
	12.5	5539	4500	3619	3201
	15.5	5613	4500	3619	3201
50	-15.0	3871	3813	3755	3732
	-10.0	4416	4359	4301	3984
	-5.0	4962	4904	4503	3984
	0.0	5508	5450	4503	3984
	2.5	5780	5600	4503	3984
	6.0	5831	5600	4503	3984
	7.5	6076	5600	4503	3984
	10.0	6484	5600	4503	3984
	12.5	6893	5600	4503	3984
	15.5	6986	5600	4503	3984
63	-15.0	4908	4835	4761	4732
	-10.0	5599	5526	5453	5051
	-5.0	6291	6218	5709	5051
	0.0	6983	6910	5709	5051
	2.5	7329	7100	5709	5051
	6.0	7393	7100	5709	5051
	7.5	7704	7100	5709	5051
	10.0	8221	7100	5709	5051
	12.5	8739	7100	5709	5051
	15.5	8857	7100	5709	5051

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚CWB	SHC	SHC	SHC	SHC
80	-15.0	6221	6128	6036	5998
	-10.0	7098	7005	6912	6402
	-5.0	7975	7882	7237	6402
	0.0	8852	8759	7237	6402
	2.5	9290	9000	7237	6402
	6.0	9371	9000	7237	6402
	7.5	9765	9000	7237	6402
	10.0	10421	9000	7237	6402
	12.5	11078	9000	7237	6402
	15.5	11227	9000	7237	6402
100	-15.0	7742	7626	7511	7465
	-10.0	8833	8718	8602	7967
	-5.0	9924	9809	9006	7967
	0.0	11015	10900	9006	7967
	2.5	11561	11200	9006	7967
	6.0	11662	11200	9006	7967
	7.5	12152	11200	9006	7967
	10.0	12969	11200	9006	7967
	12.5	13786	11200	9006	7967
	15.5	13971	11200	9006	7967
125	-15.0	9677	9533	9389	9331
	-10.0	11041	10897	10753	9959
	-5.0	12405	12261	11258	9959
	0.0	13769	13625	11258	9959
	2.5	14451	14000	11258	9959
	6.0	14577	14000	11258	9959
	7.5	15190	14000	11258	9959
	10.0	16211	14000	11258	9959
	12.5	17232	14000	11258	9959
	15.5	17464	14000	11258	9959

2-7.Cooling Capacity (In combination with PQRY-P200·250YMF-B)

PLFY-P-VKM-A,VAM-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Water temp.	Indoor air temp. 21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚C	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
32	10	3015	2292	3119	2366	3316	2346	3465	2402	3510	2469	3708	2431	3915	2390
	20	2905	2239	3005	2313	3195	2293	3339	2350	3382	2416	3573	2380	3773	2340
	30	2741	2160	2835	2234	3015	2214	3150	2272	3191	2339	3371	2304	3560	2266
	40	2384	1993	2466	2066	2623	2049	2741	2107	2776	2175	2932	2144	3097	2110
	45	2247	1931	2325	2004	2472	1986	2583	2046	2617	2114	2764	2084	2919	2051
40	10	3828	2919	3960	3014	4211	2988	4400	3061	4457	3146	4708	3098	4972	3045
	20	3689	2852	3816	2946	4058	2921	4240	2994	4295	3080	4537	3033	4791	2982
	30	3480	2752	3600	2846	3828	2821	4000	2895	4052	2982	4280	2937	4520	2888
	40	3028	2540	3132	2634	3330	2611	3480	2687	3525	2774	3724	2734	3932	2690
	45	2854	2461	2952	2554	3139	2532	3280	2608	3323	2696	3510	2658	3706	2616
50	10	4785	3451	4950	3552	5264	3522	5500	3596	5572	3684	5885	3625	6215	3561
	20	4611	3362	4770	3462	5072	3434	5300	3507	5369	3596	5671	3539	5989	3477
	30	4350	3230	4500	3331	4785	3302	5000	3377	5065	3467	5350	3413	5650	3353
	40	3785	2954	3915	3053	4163	3027	4350	3104	4407	3194	4655	3146	4916	3093
	45	3567	2850	3690	2949	3924	2924	4100	3002	4153	3093	4387	3047	4633	2997
63	10	6029	4231	6237	4348	6632	4313	6930	4394	7020	4493	7415	4421	7831	4340
	20	5810	4115	6010	4231	6391	4197	6678	4279	6765	4378	7145	4308	7546	4230
	30	5481	3944	5670	4059	6029	4026	6300	4109	6382	4209	6741	4142	7119	4068
	40	4768	3585	4933	3699	5245	3667	5481	3753	5552	3855	5865	3795	6194	3729
	45	4494	3451	4649	3564	4944	3533	5166	3620	5233	3723	5528	3666	5838	3603
80	10	7656	5539	7920	5703	8422	5655	8800	5774	8914	5918	9416	5823	9944	5719
	20	7378	5398	7632	5561	8115	5514	8480	5634	8590	5778	9074	5686	9582	5585
	30	6960	5188	7200	5351	7656	5305	8000	5426	8104	5572	8560	5484	9040	5388
	40	6055	4747	6264	4908	6661	4865	6960	4990	7050	5138	7447	5060	7865	4974
	45	5707	4582	5904	4742	6278	4700	6560	4827	6645	4975	7019	4901	7413	4820
100	10	9570	6989	9900	7200	10527	7138	11000	7293	11143	7479	11770	7360	12430	7229
	20	9222	6814	9540	7024	10144	6963	10600	7119	10738	7306	11342	7191	11978	7064
	30	8700	6554	9000	6763	9570	6705	10000	6863	10130	7051	10700	6941	11300	6820
	40	7569	6007	7830	6215	8326	6160	8700	6322	8813	6513	9309	6415	9831	6308
	45	7134	5802	7380	6009	7847	5956	8200	6120	8307	6312	8774	6218	9266	6116
125	10	11963	8373	12375	8602	13159	8533	13750	8692	13929	8887	14713	8742	15538	8580
	20	11528	8142	11925	8370	12680	8301	13250	8462	13422	8658	14178	8517	14973	8361
	30	10875	7801	11250	8028	11963	7960	12500	8123	12663	8321	13375	8187	14125	8039
	40	9461	7086	9788	7309	10407	7246	10875	7414	11016	7615	11636	7496	12289	7365
	45	8918	6819	9225	7042	9809	6980	10250	7150	10383	7352	10968	7239	11583	7115

2-8.Heatling Capacity (In combination with PQRY-P200·250YMF-B)

PLFY-P-VKM-A,VAM-A

Unit size	Water temp.	Indoor air temp.:˚CDB 15	21	25	27
	˚C	SHC	SHC	SHC	SHC
32	10	3078	3018	2444	2173
	20	3621	3550	2876	2556
	30	3621	3550	2876	2556
	40	3766	3692	2991	2658
	45	4128	4047	3278	2914
40	10	3902	3825	3098	2754
	20	4590	4500	3645	3240
	30	4590	4500	3645	3240
	40	4774	4680	3791	3370
	45	5233	5130	4155	3694
50	10	4855	4760	3856	3427
	20	5712	5600	4536	4032
	30	5712	5600	4536	4032
	40	5940	5824	4717	4193
	45	6512	6384	5171	4596
63	10	6156	6035	4888	4345
	20	7242	7100	5751	5112
	30	7242	7100	5751	5112
	40	7532	7384	5981	5316
	45	8256	8094	6556	5828

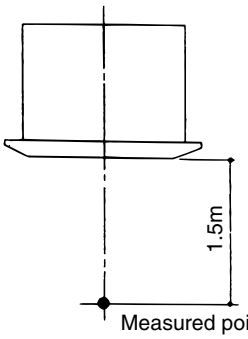
SHC:Sensible heat Capacity(kcal/h)

Unit size	Water temp.	Indoor air temp.:˚CDB 15	21	25	27
	˚C	SHC	SHC	SHC	SHC
80	10	7803	7650	6197	5508
	20	9180	9000	7290	6480
	30	9180	9000	7290	6480
	40	9547	9360	7582	6739
	45	10465	10260	8311	7387
100	10	9710	9520	7711	6854
	20	11424	11200	9072	8064
	30	11424	11200	9072	8064
	40	11881	11648	9435	8387
	45	13023	12768	10342	9193
125	10	12138	11900	9639	8568
	20	14280	14000	11340	10080
	30	14280	14000	11340	10080
	40	14851	14560	11794	10483
	45	16279	15960	12928	11491

3. Sound levels

3-1. Noise level

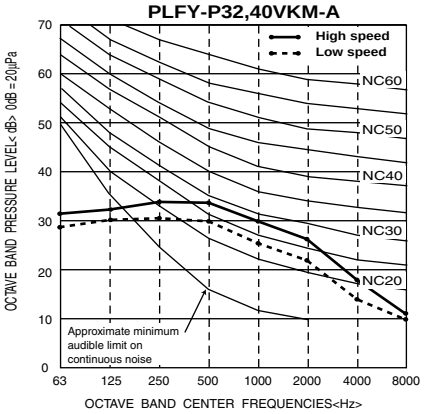
Casette ceiling (VKM-A/VAM-A series)

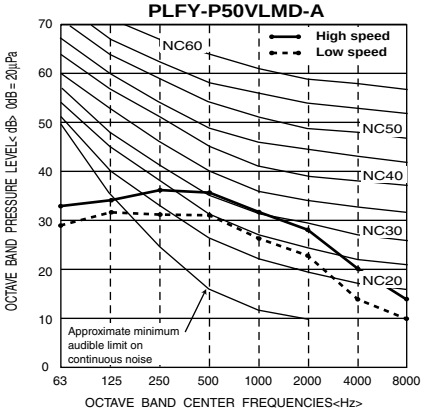


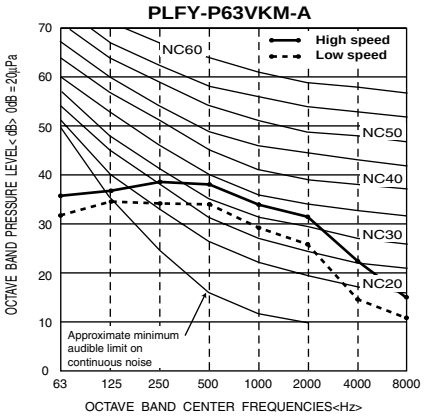
Noise level at anechoic room
(Low-Middle2-Middle1-High) Unit : dB(A)

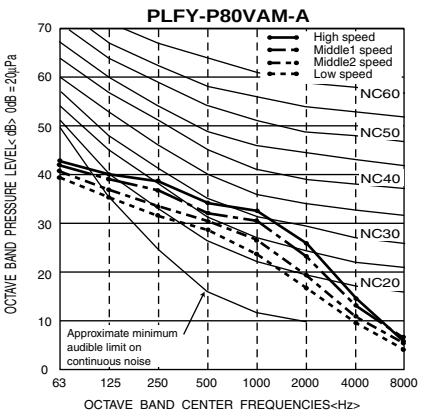
Model	Noise level (A weighted)
PLFY-P32VKM-A PLFY-P40VKM-A	31-32.5-34-35
PLFY-P50VKM-A	32-34-35.5-37
PLFY-P63VKM-A	35-36.5-38-39
PLFY-P80VAM-A	30-32-35-37
PLFY-P100VAM-A	33-36-39-41
PLFY-P125VAM-A	35-38-41-43

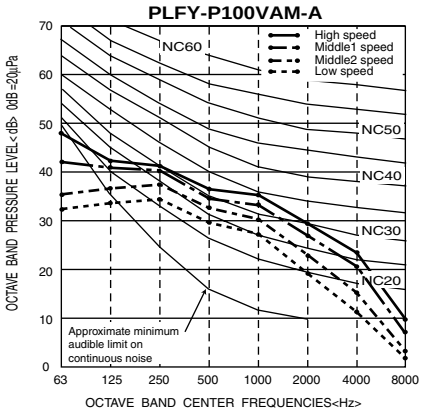
3-2. NC curves

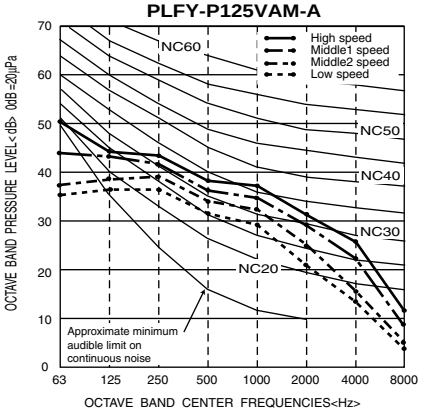








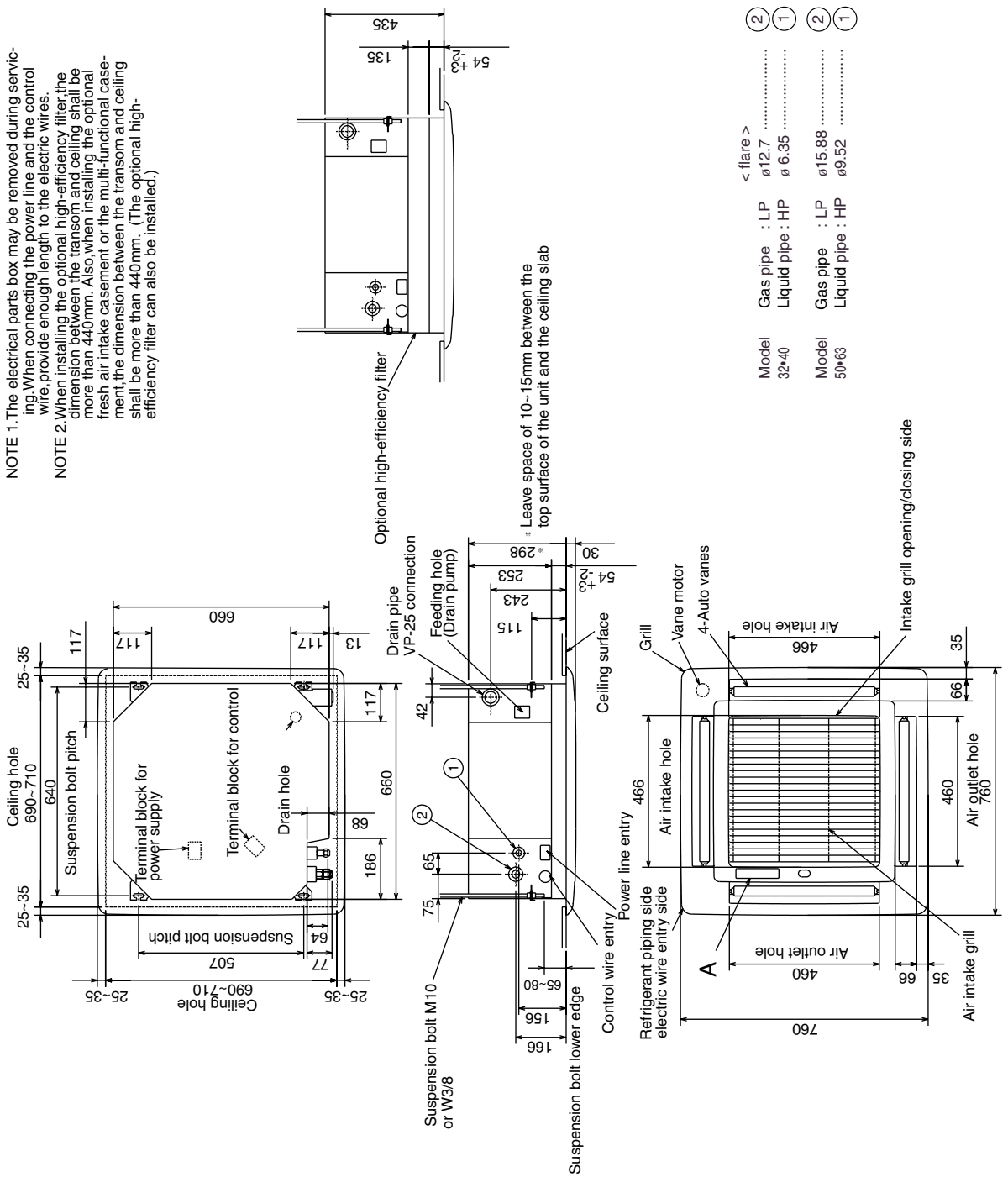




4. External Dimensions

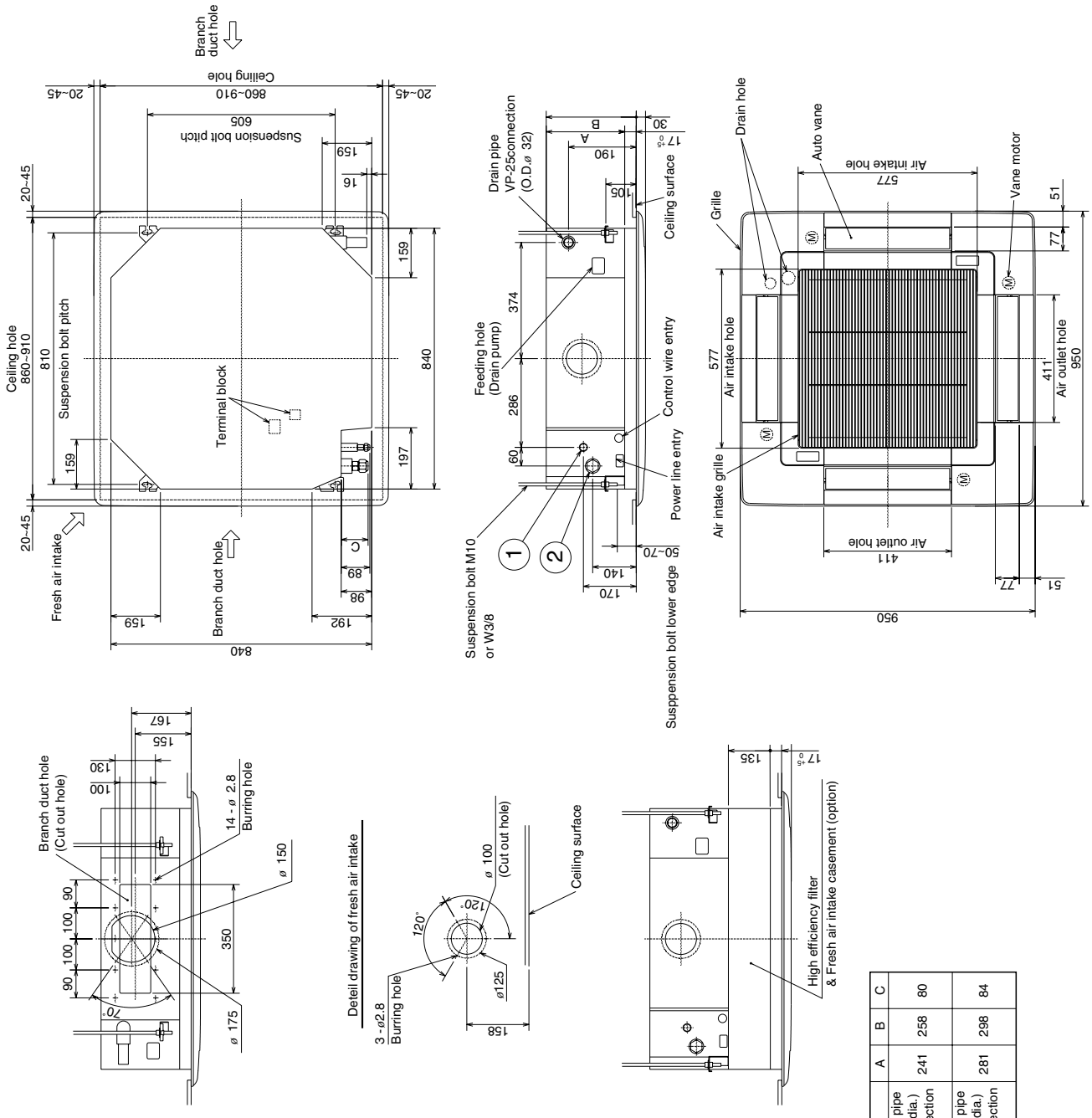
PLFY-P32,40,50,63VKM-A

Unit : mm


NOTE 1. The electrical parts box may be removed during servicing. When connecting the power line and the control wire, provide enough length to the electric wires.
NOTE 2. When installing the optional high-efficiency filter, the dimension between the transom and ceiling shall be more than 440mm. Also, when installing the optional fresh air intake casement or the multi-functional casement, the dimension between the transom and ceiling shall be more than 440mm. (The optional high-efficiency filter can also be installed.)
Optional high-efficiency filter
435
135
54 +3 -2
< flare >
Model
32•40
Gas pipe : LP ø12.7
Liquid pipe : HP ø 6.35
Model
50•63
Gas pipe : LP ø15.88
Liquid pipe : HP ø9.52
Leave space of 10~15mm between the top surface of the unit and the ceiling slab
Drain pipe VP-25 connection
Feeding hole (Drain pump)
Ceiling surface
Grill
Vane motor
4-Auto vanes
Air intake hole
Intake grill opening/closing side
Ceiling hole 690~710
Suspension bolt pitch
Terminal block for power supply
Terminal block for control
Drain hole
Power line entry
Air intake hole
Air outlet hole
Refrigerant piping side
electric wire entry side
Control wire entry
Suspension bolt M10 or W3/8
Suspension bolt lower edge
Air intake grill
A
660
640
760
466
460
298
253
243
115
166
156
65~80
507
690~710

PLFY-P80,100,125VAM-A

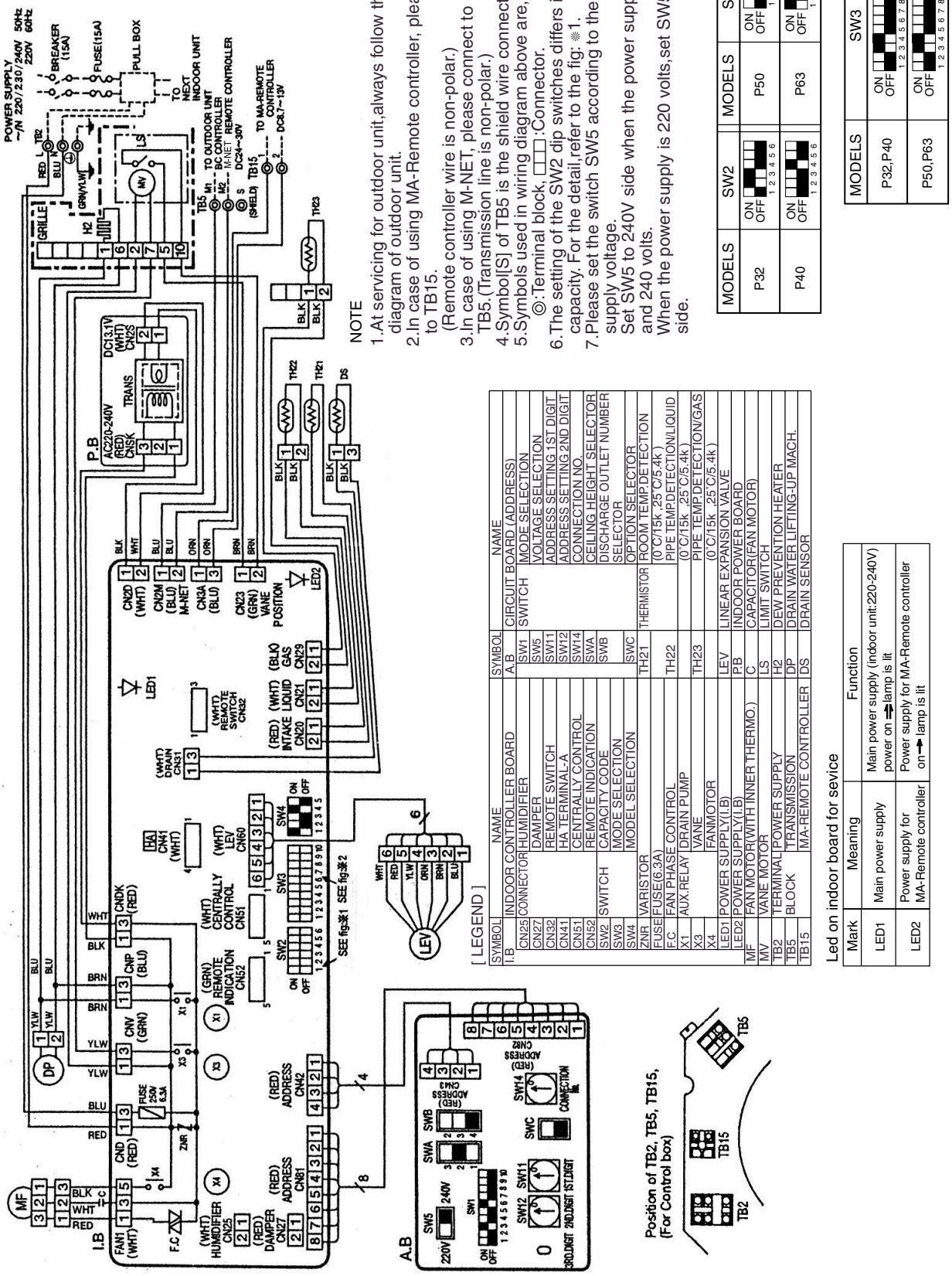
Unit : mm



Models	①	②	A	B	C
PLFY-P80VAM-A	Refrigerant pipe (9.52mm dia.) flared connection 3/8F	Refrigerant pipe (15.88mm dia.) flared connection 5/8F	241	258	80
PLFY-P100, 125VAM-A	Refrigerant pipe (9.52mm dia.) flared connection 3/8F	Refrigerant pipe (19.05mm dia.) flared connection 3/4F	281	298	84

5. Electrical Wiring Diagrams

● PLFY-P32 ~ 63VKM-A



NOTE
1. At servicing for outdoor unit,always follow the wiring diagram of outdoor unit.
2. In case of using MA-Remote controller, please connect to TB15.
(Remote controller wire is non-polar.)
3. In case of using M-NET, please connect to TB5.(Transmission line is non-polar.)
4. Symbol[S] of TB5 is the shield wire connection.
5. Symbols used in wiring diagram above are,
◎:Terminal block, □□□:Connector.
6. The setting of the SW2 dip switches differs in the capacity. For the detail,refer to the fig: ※1.
7. Please set the switch SW5 according to the power supply voltage.
Set SW5 to 240V side when the power supply is 230 and 240 volts.
When the power supply is 220 volts,set SW5 to 220V side.

<fig:※1>

MODELS	SW2	MODELS	SW2
P32	ON OFF 1 2 3 4 5 6	P50	ON OFF 1 2 3 4 5 6
P40	ON OFF 1 2 3 4 5 6	P63	ON OFF 1 2 3 4 5 6

<fig:※2>

MODELS	SW3
P32,P40	ON OFF 1 2 3 4 5 6 7 8 9 10
P50,P63	ON OFF 1 2 3 4 5 6 7 8 9 10

[LEGEND]

SYMBOL	NAME	SYMBOL	NAME
I.B	INDOOR CONTROLLER BOARD	A.B	CIRCUIT BOARD (ADDRESS)
CN25	CONNECTOR HUMIDIFIER	SW1	SWITCH MODE SELECTION
CN27	DAMPER	SW5	VOLTAGE SELECTION
CN32	REMOTE SWITCH	SW11	ADDRESS SETTING 1ST DIGIT
CN41	HA TERMINAL-A	SW12	ADDRESS SETTING 2ND DIGIT
CN51	CENTRALLY CONTROL	SW14	CONNECTION NO.
CN52	REMOTE INDICATION	SWA	CEILING HEIGHT SELECTOR
SW2	SWITCH CAPACITY CODE	SWB	DISCHARGE OUTLET NUMBER SELECTOR
SW3	MODE SELECTION	SWC	OPTION SELECTOR
SW4	MODEL SELECTION	TH21	THERMISTOR ROOM TEMP.DETECTION (0°C/15k ,25°C/5.4k)
ZNR	VARISTOR	TH22	PIPE TEMP.DETECTION/LIQUID (0°C/15k ,25°C/5.4k)
FUSE	FUSE(6.3A)	TH23	PIPE TEMP.DETECTION/GAS (0°C/15k ,25°C/5.4k)
F.C	FAN PHASE CONTROL	LEV	LINEAR EXPANSION VALVE
X1	AUX.RELAY	P.B	INDOOR POWER BOARD
X3	DRAIN PUMP	C	CAPACITOR(FAN MOTOR)
X4	VANE FANMOTOR	LS	LIMIT SWITCH
LED1	POWER SUPPLY(I.B)	H2	DEW PREVENTION HEATER
LED2	POWER SUPPLY(I.B)	DP	DRAIN WATER LIFTING-UP MACH.
MF	FAN MOTOR(WITH INNER THERMO.)	DS	DRAIN SENSOR
MV	VANE MOTOR		
TB2	TERMINAL POWER SUPPLY		
TB5	BLOCK TRANSMISSION		
TB15	MA-REMOTE CONTROLLER		

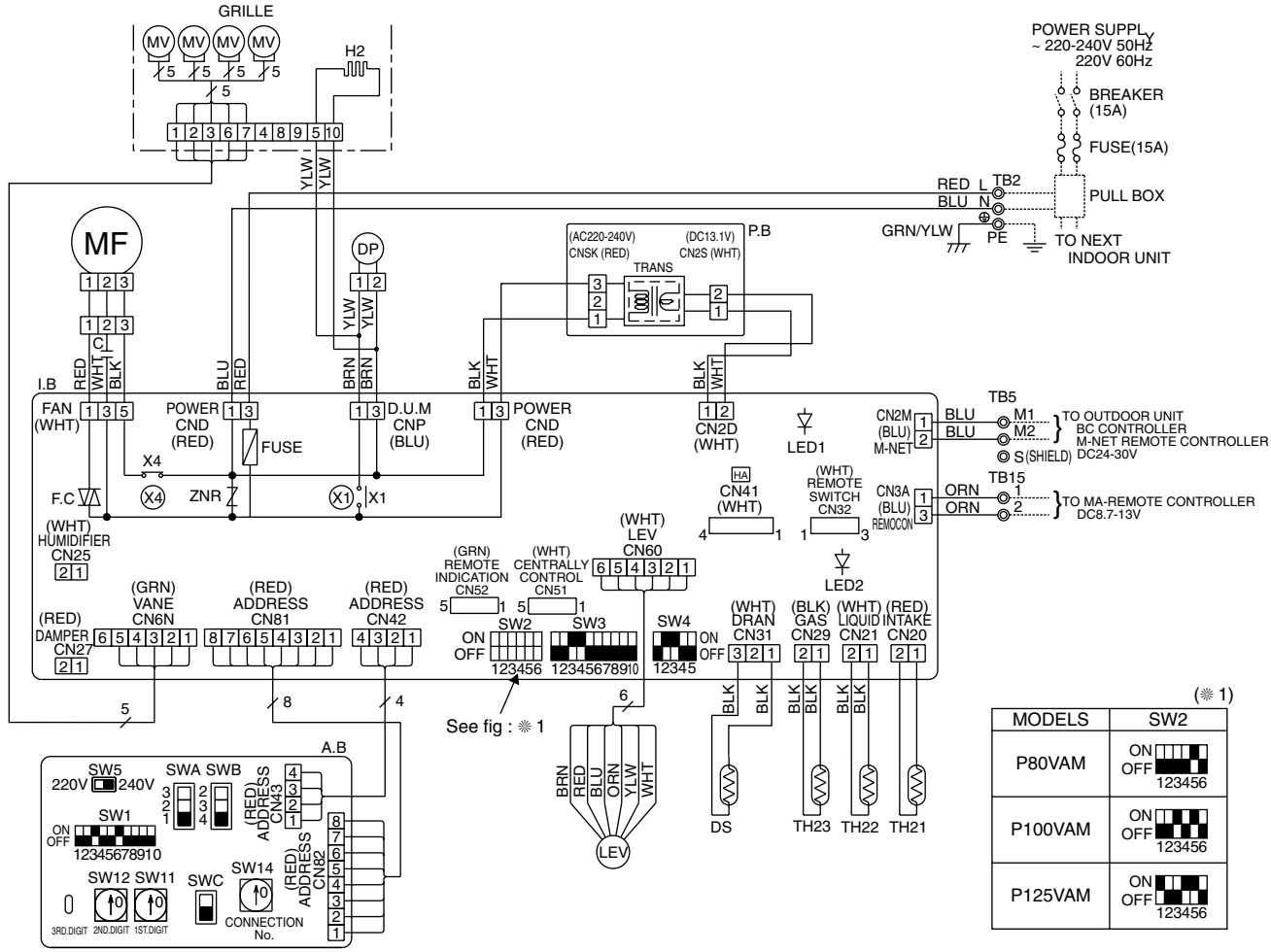
Led on indoor board for sevice

Mark	Meaning	Function
LED1	Main power supply	Main power supply (indoor unit:220-240V) power on ⇉ lamp is lit
LED2	Power supply for MA-Remote controller	Power supply for MA-Remote controller on → lamp is lit

● PLFY-P80 ~ 125VAM-A

[LEGEND]

SYMBOL	NAME		SYMBOL	NAME		SYMBOL	NAME	
P.B	INDOOR POWER BOARD		C	CAPACITOR(FAN MOTOR)		TH23	THERMISTOR	PIPE TEMPERATURE DETECTION / GAS (0˚C/15kΩ, 25˚C/5.4kΩ)
I.B	INDOOR CONTROLLER BOARD		MF	FAN MOTOR(WITH INNER THERMO)				
CN25	CONNECTOR	HUMIDIFIER	MV	VANE MOTOR				
CN32		REMOTE SWITCH	DP	DRAIN WATER LIFTING-UP MACH		A.B	CIRCUIT BOARD	
CN41		HA TERMINAL-A	DS	DRAIN SENSOR		SW1	SWITCH	MODE SELECTION
CN51		CENTRALLY CONTROL	H2	DEW PREVENTION HEATER		SW5		VOLTAGE SELECTION
CN52		REMOTE INDICATION	TB2	TERMINAL BLOCK	POWER SUPPLY	SW11		ADDRESS SETTING 1ST DIGIT
SW2	SWITCH	CAPACITY CODE	TB5		TRANSMISSION	SW12		ADDRESS SETTING 2ND DIGIT
SW3		MODE SELECTION	TB15		TRANSMISSION	SW14		CONNECTION No.
SW4		MODEL SELECTION	LEV	LINEAR EXPANSION VALVE		SWA		CEILING HEIGHT SELECTOR
ZNR	VARISTOR		TH21	THERMISTOR	ROOM TEMPERATURE DETECTION (0˚C/15kΩ, 25˚C/5.4kΩ)	SWB		DISCHARGE OUTLET NUMBER SELECTOR
FUSE	FUSE (6.3A/250V)					SWC		OPTION SELECTOR
F.C	FAN PHASE CONTROL		TH22		PIPE TEMPERATURE DETECTION / LIQUID (0˚C/15kΩ, 25˚C/5.4kΩ)			
X1	AUX.RELAY	DRAIN PUMP						
X4		FAN MOTOR						
LED1	POWER SUPPLY(I.B)							
LED2	POWER SUPPLY(I.B)							



(※1)

MODELS	SW2
P80VAM	ON OFF 123456
P100VAM	ON OFF 123456
P125VAM	ON OFF 123456

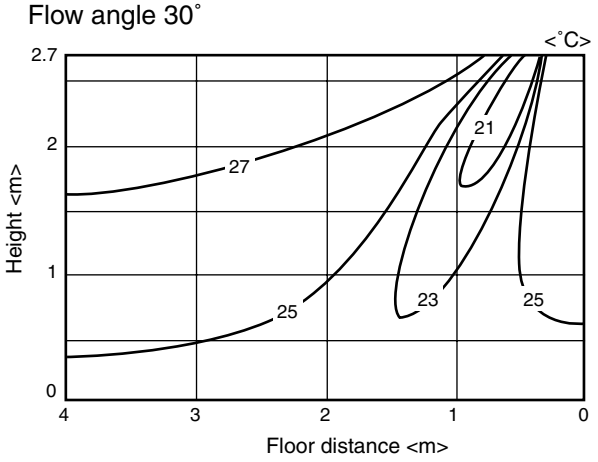
NOTE

1.At servicing for outdoor unit,always follow the wiring diagram of outdoor unit.
2.Symbol(S) of TB5 is the shield wire connection.
3.Symbols used in wiring diagram above are,◎:Terminal block, □□□:Connector.
4.The setting of the SW2 dip switches differs in the capacity for the detail, see the table below.
5.Please set the switch SW5 according to the power supply voltage.
Set SW5 to 240V side when the power supply is 230 and 240 volts.
When the power supply is 220 volts,set SW5 to 220V side.

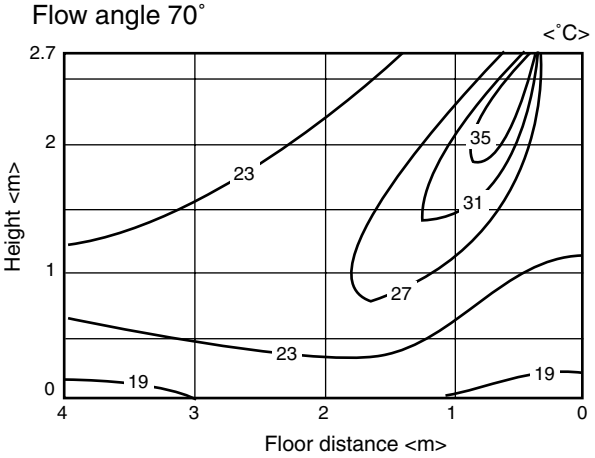
6. Temperature/Airflow distribution

● Temperature distribution

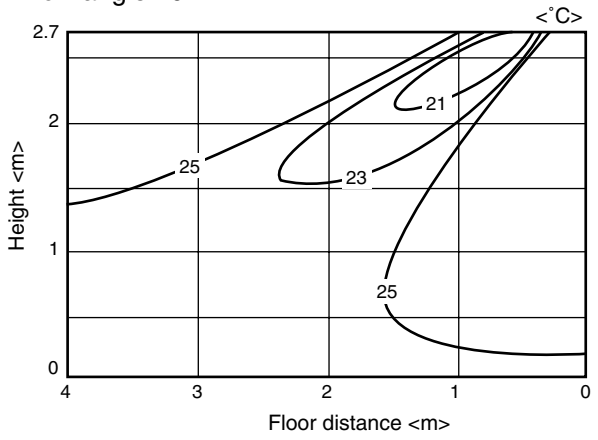
<Cooling mode>
Flow angle 30˚



<Heating mode>
Flow angle 70˚

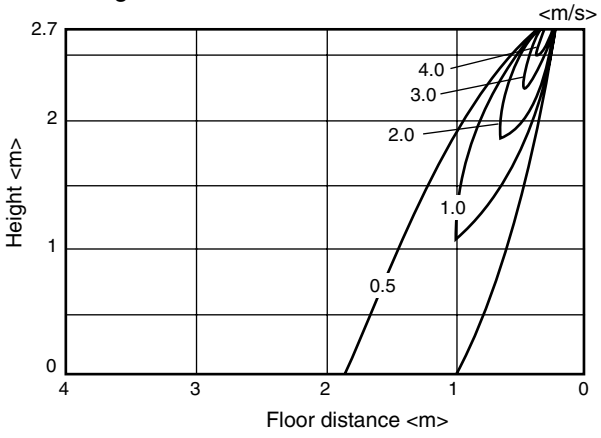


<Cooling mode>
Flow angle 70˚

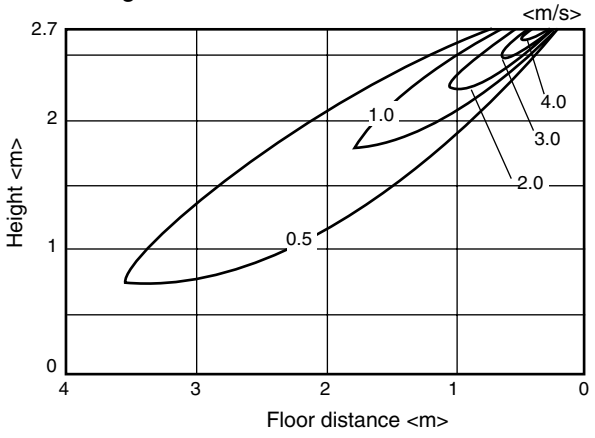


● Airflow distribution

<Fan mode>
Flow angle 70˚



<Fan mode>
Flow angle 30˚



7. Options

● PLFY-P32/P40/P50/P63VKM-A

Description	Model
Decoration panel	PLP-25KB
Space panel	PAC-SE01AS-E
Wide panel	PAC-SE06WP-E
Air outlet shutter plate	PAC-SE14SP-E
High efficiency filter element	PAC-SE13KF-E (PAC-SE21TM-E is necessary to use this filter)
Multi-function casement (High efficiency filter casement Flesh air intake casement)	PAC-SE21TM-E

● PLFY-P80/P100/P125VAM-A

Description	Model
Air outlet shutter plate	PAC-SG06SP-E
High efficiency filter casement	PAC-SG01KF
Multi-function casement	PAC-SG03TM-E

Wall mounted

PKFY-P-VAM-A
PKFY-P-VGM-A

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1. Specifications

			PKFY-P20VAM-A	PKFY-P25VAM-A	PKFY-P32VGM-A	PKFY-P40VGM-A	PKFY-P50VGM-A
Power source			~ 220-240V 50Hz ~ 220V 60Hz				
Cooling capacity	※1	kW	2.2	2.8	3.6	4.5	5.6
	※2	kcal/h	2,000	2,500	3,150	4,000	5,000
Heating capacity	※1	kW	2.5	3.2	4.0	5.0	6.3
Power consumption	Cooling	kW	0.04		0.07		
	Heating	kW	0.04		0.07		
Current	Cooling	A	0.20		0.32		
	Heating	A	0.20		0.32		
External finish(Munsel No.)			Plastic 2.60Y 8.66/0.69		Plastic <PS,ABS> white 0.70Y 8.59/0.97		
Dimension	Height	mm	295		340		
	Width	mm	815		990		
	Depth	mm	158		235		
Net weight		kg	8.5		16		
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)				
Fan	Type		Line flow fan × 1				
	Airflow rate ※3 (Lo-Mid2-Mid1-Hi)	m³/min	4.9-5.2-5.6-5.9		8-9.5-10.5-11.5		9-10-11-12
	External static pressure	Pa	0				
Motor	Type		Single phase induction motor				
	Output	kW	0.017		0.030		
Air filter			PP Honeycomb (long life)				
Refrigerant pipe dimension	Gas (Flare)	mm	ø 12.7				ø 15.88
	Liquid (Flare)	mm	ø 6.35				ø 9.52
Drain pipe dimension			ø 28,VP-16		VP-20		
Noise level (Lo-Mid2-Mid1-Hi) ※3		dB(A)	32-33-35-36		33-36-38-41		34-37-40-43

Note: ※1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19˚CWB,Outdoor 35˚CDB
Heating : Indoor 20˚CDB,Outdoor 7˚CDB/6˚CWB
※2 Cooling capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19.5˚CWB,Outdoor 35˚CDB (WR2: water 30˚C)
※3 Airflow rate/noise level are in (low-middle2-middle1-high).

2. Capacity tables

2-1.Cooling Capacity (In combination with PUMY-125YM(A))

PKFY-P-VAM-AVGM-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.							
		23˚CDB 16˚CWB		25˚CDB 18˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20 (2.2)	20.0	2.2	1.5	2.3	1.6	2.4	1.6	2.6	1.6
	22.5	2.1	1.5	2.3	1.6	2.4	1.6	2.6	1.6
	25.0	2.1	1.5	2.3	1.6	2.4	1.6	2.5	1.6
	27.5	2.1	1.5	2.2	1.6	2.4	1.6	2.5	1.6
	30.0	2.1	1.5	2.2	1.5	2.3	1.5	2.5	1.6
	32.5	2.0	1.5	2.2	1.5	2.3	1.5	2.5	1.6
	35.0	2.0	1.4	2.1	1.5	2.3	1.5	2.4	1.6
	37.5	2.0	1.4	2.1	1.5	2.2	1.5	2.4	1.5
	40.0	2.0	1.4	2.1	1.5	2.2	1.5	2.4	1.5
	46.0	1.9	1.4	2.0	1.5	2.1	1.4	2.3	1.5
25 (2.8)	20.0	2.8	1.9	2.9	2.0	3.1	2.0	3.3	2.0
	22.5	2.7	1.9	2.9	2.0	3.1	2.0	3.2	2.0
	25.0	2.7	1.9	2.9	2.0	3.1	2.0	3.2	2.0
	27.5	2.7	1.9	2.8	2.0	3.0	1.9	3.2	2.0
	30.0	2.6	1.8	2.8	1.9	3.0	1.9	3.2	2.0
	32.5	2.6	1.8	2.8	1.9	2.9	1.9	3.1	2.0
	35.0	2.6	1.8	2.7	1.9	2.9	1.9	3.1	1.9
	37.5	2.5	1.8	2.7	1.9	2.9	1.9	3.0	1.9
	40.0	2.5	1.8	2.7	1.9	2.8	1.8	3.0	1.9
	46.0	2.4	1.7	2.6	1.8	2.7	1.8	2.9	1.9
32 (3.6)	20.0	3.6	2.8	3.7	3.0	4.0	3.0	4.2	3.1
	22.5	3.5	2.8	3.7	3.0	4.0	2.9	4.2	3.0
	25.0	3.5	2.8	3.7	2.9	3.9	2.9	4.1	3.0
	27.5	3.4	2.8	3.6	2.9	3.9	2.9	4.1	3.0
	30.0	3.4	2.8	3.6	2.9	3.8	2.9	4.1	3.0
	32.5	3.3	2.7	3.6	2.9	3.8	2.9	4.0	3.0
	35.0	3.3	2.7	3.5	2.9	3.7	2.8	4.0	2.9
	37.5	3.2	2.7	3.5	2.8	3.7	2.8	3.9	2.9
	40.0	3.2	2.7	3.4	2.8	3.6	2.8	3.9	2.9
	46.0	3.1	2.6	3.3	2.8	3.5	2.7	3.7	2.8
40 (4.5)	20.0	4.5	3.3	4.7	3.4	5.0	3.4	5.3	3.5
	22.5	4.4	3.2	4.6	3.4	5.0	3.4	5.2	3.4
	25.0	4.3	3.2	4.6	3.4	4.9	3.3	5.2	3.4
	27.5	4.3	3.2	4.6	3.3	4.9	3.3	5.1	3.4
	30.0	4.2	3.1	4.5	3.3	4.8	3.3	5.1	3.4
	32.5	4.2	3.1	4.4	3.3	4.7	3.2	5.0	3.4
	35.0	4.1	3.1	4.4	3.2	4.7	3.2	5.0	3.3
	37.5	4.1	3.1	4.3	3.2	4.6	3.2	4.9	3.3
	40.0	4.0	3.0	4.3	3.2	4.5	3.2	4.8	3.3
	46.0	3.8	3.0	4.1	3.1	4.3	3.1	4.6	3.2
50 (5.6)	20.0	5.5	3.8	5.8	4.0	6.2	4.0	6.6	4.1
	22.5	5.5	3.8	5.8	3.9	6.2	3.9	6.5	4.0
	25.0	5.4	3.8	5.7	3.9	6.1	3.9	6.4	4.0
	27.5	5.3	3.7	5.7	3.9	6.0	3.9	6.4	4.0
	30.0	5.3	3.7	5.6	3.9	5.9	3.8	6.3	3.9
	32.5	5.2	3.6	5.5	3.8	5.9	3.8	6.2	3.9
	35.0	5.1	3.6	5.5	3.8	5.8	3.7	6.2	3.9
	37.5	5.0	3.6	5.4	3.7	5.7	3.7	6.1	3.8
	40.0	5.0	3.5	5.3	3.7	5.6	3.7	6.0	3.8
	46.0	4.8	3.4	5.1	3.6	5.4	3.6	5.8	3.7

2-2.Heating Capacity (In combination with PUMY-125YM(A))

PKFY-P-VAM-A,VGM-A

SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB		
		15.0	20.0	25.0
	˚CWB	SHC	SHC	SHC
20	-12.0	1.6	1.6	1.5
	-10.0	1.7	1.6	1.6
	-5.0	1.9	1.9	1.9
	0.0	2.2	2.1	2.1
	2.5	2.3	2.3	2.3
	6.0	2.5	2.5	2.5
	7.5	2.6	2.6	2.5
	10.0	2.8	2.7	2.5
	12.5	2.9	2.8	2.5
	15.5	3.1	2.8	2.5
25	-12.0	2.0	2.0	2.0
	-10.0	2.1	2.1	2.1
	-5.0	2.4	2.4	2.4
	0.0	2.8	2.8	2.7
	2.5	3.0	2.9	2.9
	6.0	3.2	3.2	3.2
	7.5	3.3	3.3	3.2
	10.0	3.5	3.5	3.2
	12.5	3.7	3.5	3.2
	15.5	3.9	3.5	3.2

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB		
		15.0	20.0	25.0
	˚CWB	SHC	SHC	SHC
32	-12.0	2.5	2.5	2.5
	-10.0	2.7	2.6	2.6
	-5.0	3.1	3.0	3.0
	0.0	3.5	3.4	3.4
	2.5	3.7	3.7	3.6
	6.0	4.0	4.0	3.9
	7.5	4.2	4.1	4.0
	10.0	4.4	4.4	4.0
	12.5	4.7	4.4	4.0
	15.5	4.9	4.4	4.0
40	-12.0	3.2	3.1	3.1
	-10.0	3.4	3.3	3.2
	-5.0	3.8	3.8	3.7
	0.0	4.3	4.3	4.2
	2.5	4.6	4.6	4.5
	6.0	5.0	5.0	4.9
	7.5	5.2	5.2	5.0
	10.0	5.5	5.5	5.0
	12.5	5.9	5.5	5.0
	15.5	6.2	5.5	5.0
50	-12.0	4.0	3.9	3.9
	-10.0	4.2	4.2	4.1
	-5.0	4.8	4.8	4.7
	0.0	5.5	5.4	5.3
	2.5	5.8	5.8	5.7
	6.0	6.3	6.3	6.2
	7.5	6.6	6.5	6.2
	10.0	7.0	6.9	6.2
	12.5	7.4	7.0	6.2
	15.5	7.7	7.0	6.2

2-3.Cooling Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PKFY-P-VAM-A,VGM-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	20.0	2.2	1.5	2.2	1.5	2.3	1.5	2.3	1.5	2.4	1.6	2.5	1.5	2.6	1.5
(2.2)	22.5	2.1	1.5	2.2	1.5	2.3	1.5	2.3	1.5	2.4	1.5	2.4	1.5	2.5	1.5
	25.0	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.5	2.3	1.5	2.4	1.5	2.5	1.5
	27.5	2.1	1.5	2.1	1.5	2.2	1.5	2.3	1.5	2.3	1.5	2.4	1.5	2.5	1.4
	30.0	2.1	1.5	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.5	2.4	1.5	2.5	1.4
	32.5	2.0	1.5	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.5	2.4	1.5	2.4	1.4
	35.0	2.0	1.5	2.1	1.5	2.2	1.5	2.2	1.5	2.2	1.5	2.3	1.5	2.4	1.4
	37.5	2.0	1.4	2.0	1.5	2.1	1.4	2.2	1.4	2.2	1.5	2.3	1.5	2.4	1.4
	40.0	2.0	1.4	2.0	1.5	2.1	1.4	2.2	1.4	2.2	1.5	2.3	1.4	2.4	1.4
	43.0	2.0	1.4	2.0	1.4	2.1	1.4	2.1	1.4	2.2	1.5	2.3	1.4	2.3	1.4
25	20.0	2.7	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.9	3.1	1.9	3.2	1.8
(2.8)	22.5	2.7	1.9	2.8	1.9	2.9	1.9	2.9	1.9	3.0	1.9	3.1	1.9	3.2	1.8
	25.0	2.7	1.9	2.7	1.9	2.9	1.9	2.9	1.9	3.0	1.9	3.1	1.9	3.2	1.8
	27.5	2.7	1.9	2.7	1.9	2.8	1.8	2.9	1.9	2.9	1.9	3.1	1.9	3.2	1.8
	30.0	2.6	1.8	2.7	1.9	2.8	1.8	2.9	1.8	2.9	1.9	3.0	1.8	3.1	1.8
	32.5	2.6	1.8	2.7	1.9	2.8	1.8	2.8	1.8	2.9	1.9	3.0	1.8	3.1	1.8
	35.0	2.6	1.8	2.6	1.9	2.7	1.8	2.8	1.8	2.9	1.9	3.0	1.8	3.1	1.8
	37.5	2.5	1.8	2.6	1.8	2.7	1.8	2.8	1.8	2.8	1.9	2.9	1.8	3.1	1.8
	40.0	2.5	1.8	2.6	1.8	2.7	1.8	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.7
	43.0	2.5	1.8	2.5	1.8	2.7	1.8	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.7
32	20.0	3.5	2.8	3.6	2.9	3.7	2.8	3.8	2.9	3.9	3.0	4.0	2.9	4.2	2.8
(3.6)	22.5	3.5	2.8	3.6	2.9	3.7	2.8	3.8	2.9	3.9	3.0	4.0	2.9	4.1	2.8
	25.0	3.5	2.8	3.5	2.9	3.7	2.8	3.7	2.9	3.8	3.0	4.0	2.9	4.1	2.8
	27.5	3.4	2.8	3.5	2.9	3.6	2.8	3.7	2.8	3.8	2.9	3.9	2.9	4.1	2.8
	30.0	3.4	2.8	3.5	2.8	3.6	2.8	3.7	2.8	3.7	2.9	3.9	2.9	4.0	2.8
	32.5	3.3	2.7	3.4	2.8	3.6	2.8	3.6	2.8	3.7	2.9	3.9	2.9	4.0	2.8
	35.0	3.3	2.7	3.4	2.8	3.5	2.8	3.6	2.8	3.7	2.9	3.8	2.8	4.0	2.8
	37.5	3.3	2.7	3.3	2.8	3.5	2.7	3.6	2.8	3.6	2.9	3.8	2.8	3.9	2.8
	40.0	3.2	2.7	3.3	2.8	3.5	2.7	3.5	2.8	3.6	2.9	3.7	2.8	3.9	2.7
	43.0	3.2	2.7	3.3	2.8	3.4	2.7	3.5	2.8	3.6	2.9	3.7	2.8	3.8	2.7
40	20.0	4.4	3.2	4.5	3.3	4.7	3.2	4.8	3.2	4.9	3.3	5.0	3.3	5.2	3.2
(4.5)	22.5	4.4	3.2	4.5	3.3	4.6	3.2	4.7	3.2	4.8	3.3	5.0	3.2	5.2	3.2
	25.0	4.3	3.2	4.4	3.3	4.6	3.2	4.7	3.2	4.8	3.3	5.0	3.2	5.1	3.1
	27.5	4.3	3.2	4.4	3.2	4.5	3.2	4.6	3.2	4.7	3.3	4.9	3.2	5.1	3.1
	30.0	4.2	3.1	4.3	3.2	4.5	3.1	4.6	3.2	4.7	3.3	4.9	3.2	5.0	3.1
	32.5	4.2	3.1	4.3	3.2	4.5	3.1	4.5	3.2	4.6	3.3	4.8	3.2	5.0	3.1
	35.0	4.1	3.1	4.2	3.2	4.4	3.1	4.5	3.1	4.6	3.2	4.8	3.2	5.0	3.1
	37.5	4.1	3.1	4.2	3.2	4.4	3.1	4.5	3.1	4.5	3.2	4.7	3.1	4.9	3.1
	40.0	4.1	3.1	4.1	3.1	4.3	3.1	4.4	3.1	4.5	3.2	4.7	3.1	4.9	3.0
	43.0	4.0	3.0	4.1	3.1	4.3	3.0	4.4	3.1	4.4	3.2	4.6	3.1	4.8	3.0
50	20.0	5.5	3.8	5.6	3.9	5.8	3.8	5.9	3.8	6.0	3.9	6.3	3.7	6.5	3.6
(5.6)	22.5	5.4	3.8	5.5	3.8	5.8	3.7	5.9	3.7	6.0	3.8	6.2	3.7	6.4	3.6
	25.0	5.4	3.7	5.5	3.8	5.7	3.7	5.8	3.7	5.9	3.8	6.2	3.7	6.4	3.6
	27.5	5.3	3.7	5.4	3.8	5.7	3.7	5.8	3.7	5.9	3.8	6.1	3.7	6.3	3.6
	30.0	5.3	3.7	5.4	3.7	5.6	3.7	5.7	3.7	5.8	3.8	6.0	3.7	6.3	3.5
	32.5	5.2	3.6	5.3	3.7	5.5	3.6	5.7	3.6	5.8	3.7	6.0	3.6	6.2	3.5
	35.0	5.2	3.6	5.3	3.7	5.5	3.6	5.6	3.6	5.7	3.7	5.9	3.6	6.2	3.5
	37.5	5.1	3.6	5.2	3.7	5.4	3.6	5.5	3.6	5.7	3.7	5.9	3.6	6.1	3.5
	40.0	5.0	3.6	5.2	3.6	5.4	3.5	5.5	3.6	5.6	3.7	5.8	3.6	6.0	3.5
	43.0	5.0	3.5	5.1	3.6	5.3	3.5	5.4	3.5	5.5	3.6	5.8	3.5	6.0	3.4

2-4.Heating Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PKFY-P-VAM-A,VGM-A

SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15.0	20.0	25.0	27.0
	˚CWB	SHC	SHC	SHC	SHC
20	-15.0	1.7	1.6	1.6	1.6
	-10.0	1.9	1.9	1.9	1.7
	-5.0	2.1	2.1	2.0	1.7
	0.0	2.4	2.4	2.0	1.7
	2.5	2.5	2.5	2.0	1.7
	6.0	2.5	2.5	2.0	1.7
	7.5	2.6	2.5	2.0	1.7
	10.0	2.8	2.5	2.0	1.7
	12.5	3.0	2.5	2.0	1.7
	15.5	3.0	2.5	2.0	1.7
25	-15.0	2.1	2.1	2.1	2.1
	-10.0	2.4	2.4	2.4	2.2
	-5.0	2.7	2.7	2.5	2.2
	0.0	3.1	3.0	2.5	2.2
	2.5	3.2	3.2	2.5	2.2
	6.0	3.2	3.2	2.5	2.2
	7.5	3.4	3.2	2.5	2.2
	10.0	3.6	3.2	2.5	2.2
	12.5	3.8	3.2	2.5	2.2
	15.5	3.9	3.2	2.5	2.2

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15.0	20.0	25.0	27.0
	˚CWB	SHC	SHC	SHC	SHC
32	-15.0	2.7	2.6	2.6	2.6
	-10.0	3.1	3.0	3.0	2.8
	-5.0	3.4	3.4	3.1	2.8
	0.0	3.8	3.8	3.1	2.8
	2.5	4.0	4.0	3.1	2.8
	6.0	4.0	4.0	3.1	2.8
	7.5	4.2	4.0	3.1	2.8
	10.0	4.5	4.0	3.1	2.8
	12.5	4.8	4.0	3.1	2.8
	15.5	4.8	4.0	3.1	2.8
40	-15.0	3.3	3.3	3.3	3.3
	-10.0	3.8	3.8	3.7	3.5
	-5.0	4.3	4.2	3.9	3.5
	0.0	4.8	4.7	3.9	3.5
	2.5	5.0	5.0	3.9	3.5
	6.0	5.1	5.0	3.9	3.5
	7.5	5.3	5.0	3.9	3.5
	10.0	5.6	5.0	3.9	3.5
	12.5	6.0	5.0	3.9	3.5
	15.5	6.1	5.0	3.9	3.5
50	-15.0	4.2	4.2	4.1	4.1
	-10.0	4.8	4.8	4.7	4.3
	-5.0	5.4	5.3	4.9	4.3
	0.0	6.0	5.9	4.9	4.3
	2.5	6.3	6.2	4.9	4.3
	6.0	6.4	6.3	4.9	4.3
	7.5	6.6	6.3	4.9	4.3
	10.0	7.1	6.3	4.9	4.3
	12.5	7.5	6.3	4.9	4.3
	15.5	7.6	6.3	4.9	4.3

2-5.Cooling capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PKFY-P-VAM-A,VGM-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	20.0	1813	1287	1901	1337	2049	1340	2157	1373	2192	1407	2320	1386	2459	1364
	22.5	1813	1287	1894	1334	2031	1331	2131	1361	2164	1395	2290	1374	2424	1351
	25.0	1799	1280	1876	1324	2008	1320	2105	1349	2137	1382	2259	1361	2389	1338
	27.5	1784	1273	1857	1315	1985	1309	2079	1337	2110	1370	2229	1348	2354	1324
	30.0	1770	1265	1839	1306	1962	1298	2052	1325	2083	1358	2198	1336	2319	1311
	32.5	1755	1258	1821	1296	1939	1287	2026	1313	2055	1346	2167	1323	2285	1298
	35.0	1741	1250	1802	1287	1916	1277	2000	1302	2028	1334	2137	1311	2250	1285
	37.5	1726	1243	1784	1278	1893	1266	1974	1290	2001	1322	2106	1298	2215	1272
	40.0	1712	1235	1766	1269	1870	1255	1948	1278	1974	1310	2076	1286	2180	1259
	43.0	1695	1226	1744	1258	1843	1242	1916	1264	1941	1296	2039	1271	2139	1243
25	20.0	2266	1589	2377	1649	2561	1653	2697	1693	2740	1733	2900	1708	3073	1680
	22.5	2266	1589	2367	1645	2539	1642	2664	1677	2705	1718	2862	1691	3030	1663
	25.0	2248	1579	2345	1633	2510	1628	2631	1662	2671	1702	2824	1675	2986	1646
	27.5	2230	1570	2322	1621	2482	1614	2598	1647	2637	1687	2786	1659	2943	1629
	30.0	2212	1560	2299	1609	2453	1600	2566	1632	2603	1671	2748	1643	2899	1612
	32.5	2194	1551	2276	1597	2424	1586	2533	1617	2569	1656	2709	1627	2856	1595
	35.0	2176	1541	2253	1586	2395	1573	2500	1602	2535	1640	2671	1611	2812	1578
	37.5	2158	1532	2230	1574	2367	1559	2467	1587	2501	1625	2633	1595	2769	1562
	40.0	2140	1522	2207	1562	2338	1545	2434	1572	2467	1610	2595	1580	2725	1545
	43.0	2118	1511	2180	1548	2304	1529	2395	1555	2426	1592	2549	1561	2673	1526
32	20.0	2855	2352	2995	2455	3227	2452	3398	2530	3452	2613	3654	2577	3872	2539
	22.5	2855	2352	2983	2450	3199	2440	3357	2513	3409	2596	3606	2559	3817	2520
	25.0	2833	2341	2954	2437	3163	2425	3315	2497	3366	2579	3558	2542	3763	2502
	27.5	2810	2331	2925	2424	3127	2409	3274	2480	3323	2562	3510	2524	3708	2484
	30.0	2787	2320	2896	2411	3091	2394	3233	2464	3280	2545	3462	2507	3653	2465
	32.5	2765	2310	2868	2398	3055	2379	3191	2447	3237	2529	3414	2490	3598	2447
	35.0	2742	2299	2839	2385	3018	2364	3150	2431	3194	2512	3366	2472	3544	2429
	37.5	2719	2289	2810	2372	2982	2349	3109	2415	3151	2495	3318	2455	3489	2411
	40.0	2696	2278	2781	2360	2946	2334	3067	2399	3109	2479	3270	2438	3434	2393
	43.0	2669	2266	2746	2344	2902	2316	3018	2379	3057	2459	3212	2417	3368	2372
40	20.0	3625	2699	3803	2809	4098	2810	4315	2886	4383	2967	4640	2924	4917	2878
	22.5	3625	2699	3788	2802	4063	2793	4262	2864	4329	2943	4579	2900	4848	2853
	25.0	3597	2685	3751	2784	4017	2773	4210	2841	4274	2920	4518	2876	4778	2827
	27.5	3568	2671	3715	2766	3971	2752	4157	2818	4220	2897	4457	2852	4708	2802
	30.0	3539	2656	3678	2749	3925	2731	4105	2796	4165	2874	4396	2828	4639	2777
	32.5	3511	2642	3641	2731	3879	2710	4052	2774	4111	2852	4335	2804	4569	2753
	35.0	3482	2628	3605	2714	3833	2690	4000	2751	4056	2829	4274	2781	4500	2728
	37.5	3453	2614	3568	2696	3787	2669	3948	2729	4002	2806	4213	2757	4430	2703
	40.0	3424	2600	3531	2679	3741	2649	3895	2707	3947	2784	4152	2734	4361	2679
	43.0	3389	2583	3487	2658	3686	2625	3832	2681	3882	2757	4078	2706	4277	2649
50	20.0	4532	3162	4753	3282	5123	3290	5393	3368	5479	3448	5800	3397	6146	3342
	22.5	4532	3162	4735	3273	5078	3268	5328	3337	5411	3416	5724	3364	6059	3307
	25.0	4496	3143	4689	3249	5021	3240	5262	3306	5343	3385	5648	3331	5972	3273
	27.5	4460	3124	4643	3225	4963	3212	5197	3276	5275	3353	5571	3299	5886	3238
	30.0	4424	3105	4597	3201	4906	3184	5131	3245	5207	3322	5495	3266	5799	3204
	32.5	4388	3086	4552	3177	4848	3156	5066	3215	5139	3291	5419	3234	5712	3171
	35.0	4352	3066	4506	3154	4791	3128	5000	3185	5070	3261	5342	3202	5625	3137
	37.5	4316	3047	4460	3130	4734	3100	4934	3155	5002	3230	5266	3170	5538	3103
	40.0	4280	3028	4414	3107	4676	3073	4869	3125	4934	3199	5190	3139	5451	3070
	43.0	4237	3006	4359	3079	4607	3040	4790	3090	4852	3163	5098	3101	5347	3031

2-6.Heating capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PKFY-P-VAM-A,VGM-A

SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚CWB	SHC	SHC	SHC	SHC
20	-15.0	1555	1532	1509	1500
	-10.0	1774	1751	1728	1601
	-5.0	1994	1970	1809	1601
	0.0	2213	2190	1809	1601
	2.5	2322	2250	1809	1601
	6.0	2343	2250	1809	1601
	7.5	2441	2250	1809	1601
	10.0	2605	2250	1809	1601
	12.5	2769	2250	1809	1601
	15.5	2807	2250	1809	1601
25	-15.0	1935	1907	1878	1866
	-10.0	2208	2179	2151	1992
	-5.0	2481	2452	2252	1992
	0.0	2754	2725	2252	1992
	2.5	2890	2800	2252	1992
	6.0	2915	2800	2252	1992
	7.5	3038	2800	2252	1992
	10.0	3242	2800	2252	1992
	12.5	3446	2800	2252	1992
	15.5	3493	2800	2252	1992

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚CWB	SHC	SHC	SHC	SHC
32	-15.0	2454	2417	2381	2366
	-10.0	2800	2763	2727	2525
	-5.0	3146	3109	2855	2525
	0.0	3491	3455	2855	2525
	2.5	3664	3550	2855	2525
	6.0	3696	3550	2855	2525
	7.5	3852	3550	2855	2525
	10.0	4111	3550	2855	2525
	12.5	4370	3550	2855	2525
	15.5	4428	3550	2855	2525
40	-15.0	3111	3064	3018	2999
	-10.0	3549	3503	3456	3201
	-5.0	3987	3941	3619	3201
	0.0	4426	4379	3619	3201
	2.5	4645	4500	3619	3201
	6.0	4686	4500	3619	3201
	7.5	4883	4500	3619	3201
	10.0	5211	4500	3619	3201
	12.5	5539	4500	3619	3201
	15.5	5613	4500	3619	3201
50	-15.0	3871	3813	3755	3732
	-10.0	4416	4359	4301	3984
	-5.0	4962	4904	4503	3984
	0.0	5508	5450	4503	3984
	2.5	5780	5600	4503	3984
	6.0	5831	5600	4503	3984
	7.5	6076	5600	4503	3984
	10.0	6484	5600	4503	3984
	12.5	6893	5600	4503	3984
	15.5	6986	5600	4503	3984

2-7.Cooling Capacity (In combination with PQRY-P200·250YMF-B)

PKFY-P-VAM-A,VGM-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Water temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚C	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	10	1914	1341	1980	1378	2105	1367	2200	1392	2229	1424	2354	1401	2486	1375
	20	1844	1304	1908	1341	2029	1330	2120	1356	2148	1387	2268	1365	2396	1340
	30	1740	1250	1800	1286	1914	1275	2000	1302	2026	1333	2140	1312	2260	1288
	40	1514	1135	1566	1171	1665	1161	1740	1188	1763	1220	1862	1201	1966	1181
	45	1427	1093	1476	1128	1569	1119	1640	1146	1661	1178	1755	1160	1853	1141
25	10	2393	1657	2475	1701	2632	1688	2750	1718	2786	1755	2943	1726	3108	1694
	20	2306	1610	2385	1654	2536	1641	2650	1671	2684	1708	2836	1680	2995	1649
	30	2175	1541	2250	1584	2393	1571	2500	1602	2533	1639	2675	1613	2825	1583
	40	1892	1395	1958	1438	2081	1426	2175	1458	2203	1496	2327	1472	2458	1446
	45	1784	1341	1845	1384	1962	1372	2050	1404	2077	1442	2194	1420	2317	1395
32	10	3015	2426	3119	2512	3316	2489	3465	2557	3510	2636	3708	2596	3915	2553
	20	2905	2375	3005	2460	3195	2438	3339	2506	3382	2585	3573	2547	3773	2506
	30	2741	2299	2835	2384	3015	2362	3150	2431	3191	2511	3371	2474	3560	2434
	40	2384	2137	2466	2221	2623	2202	2741	2272	2776	2352	2932	2319	3097	2284
	45	2247	2075	2325	2160	2472	2141	2583	2212	2617	2292	2764	2261	2919	2227
40	10	3828	2801	3960	2886	4211	2861	4400	2923	4457	2998	4708	2951	4972	2898
	20	3689	2731	3816	2815	4058	2791	4240	2854	4295	2929	4537	2883	4791	2832
	30	3480	2627	3600	2711	3828	2688	4000	2751	4052	2827	4280	2783	4520	2735
	40	3028	2409	3132	2492	3330	2470	3480	2536	3525	2612	3724	2573	3932	2530
	45	2854	2327	2952	2410	3139	2389	3280	2455	3323	2532	3510	2495	3706	2454
50	10	4785	3300	4950	3386	5264	3360	5500	3419	5572	3491	5885	3434	6215	3370
	20	4611	3205	4770	3291	5072	3265	5300	3324	5369	3397	5671	3341	5989	3279
	30	4350	3065	4500	3151	4785	3125	5000	3185	5065	3258	5350	3205	5650	3147
	40	3785	2773	3915	2857	4163	2833	4350	2895	4407	2969	4655	2922	4916	2870
	45	3567	2664	3690	2748	3924	2724	4100	2787	4153	2862	4387	2817	4633	2768

2-8.Heating Capacity (In combination with PQRY-P200·250YMF-B)

PKFY-P-VAM-A,VGM-A

Unit size	Water temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚C	SHC	SHC	SHC	SHC
20	10	1951	1913	1549	1377
	20	2295	2250	1823	1620
	30	2295	2250	1823	1620
	40	2387	2340	1895	1685
	45	2616	2565	2078	1847
25	10	2428	2380	1928	1714
	20	2856	2800	2268	2016
	30	2856	2800	2268	2016
	40	2970	2912	2359	2097
	45	3256	3192	2586	2298

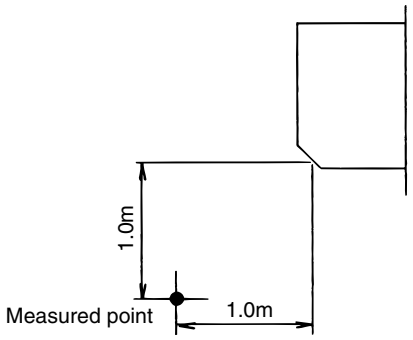
SHC:Sensible heat Capacity(kcal/h)

Unit size	Water temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚C	SHC	SHC	SHC	SHC
32	10	3078	3018	2444	2173
	20	3621	3550	2876	2556
	30	3621	3550	2876	2556
	40	3766	3692	2991	2658
	45	4128	4047	3278	2914
40	10	3902	3825	3098	2754
	20	4590	4500	3645	3240
	30	4590	4500	3645	3240
	40	4774	4680	3791	3370
	45	5233	5130	4155	3694
50	10	4855	4760	3856	3427
	20	5712	5600	4536	4032
	30	5712	5600	4536	4032
	40	5940	5824	4717	4193
	45	6512	6384	5171	4596

3. Sound levels

3-1. Noise level

Wall mounted

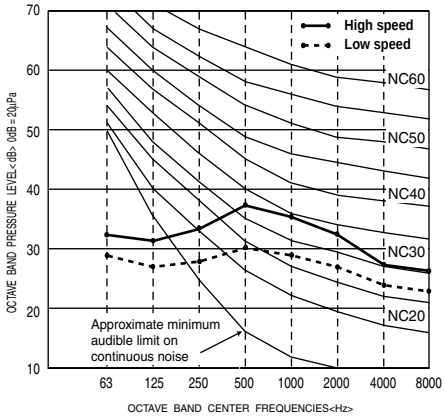


Noise level at anechoic room
(Low-Middle2-Middle1-High) Unit : dB(A)

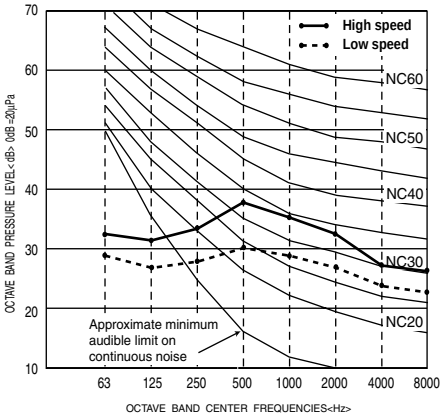
Model	Noise level (A weighted)
PKFY-P20VAM-A PKFY-P25VAM-A	32-33-35-36
PKFY-P32VGM-A PKFY-P40VGM-A	33-36-38-41
PKFY-P50VGM-A	34-37-40-43

3-2. NC curves

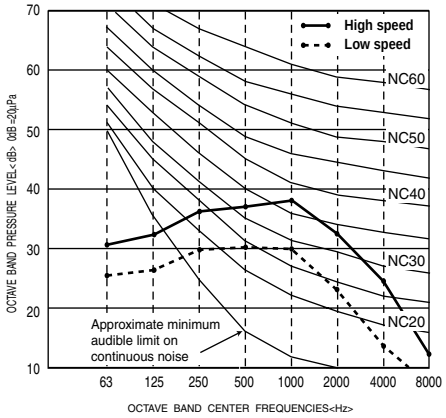
PKFY-P20VAM-A



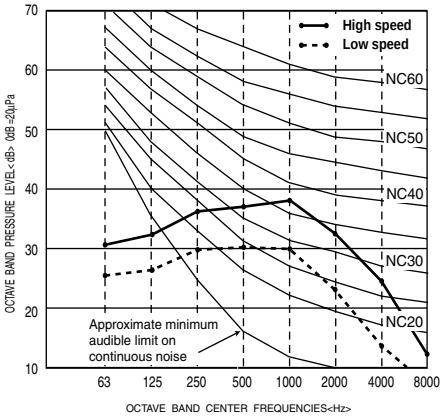
PKFY-P25VAM-A



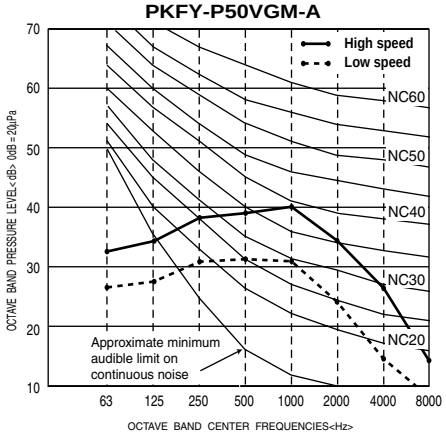
PKFY-P32VGM-A



PKFY-P40VGM-A



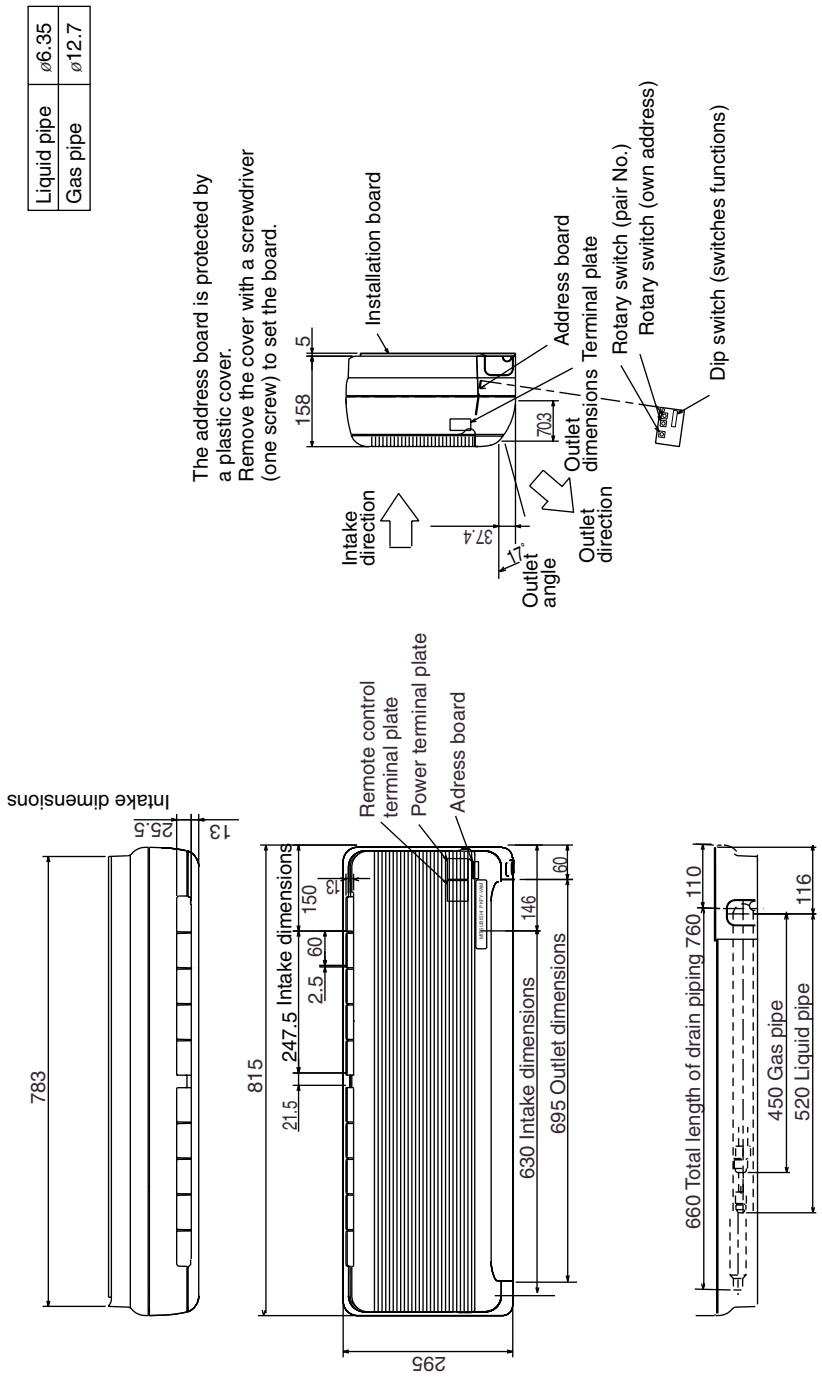
PKFY-P50VGM-A

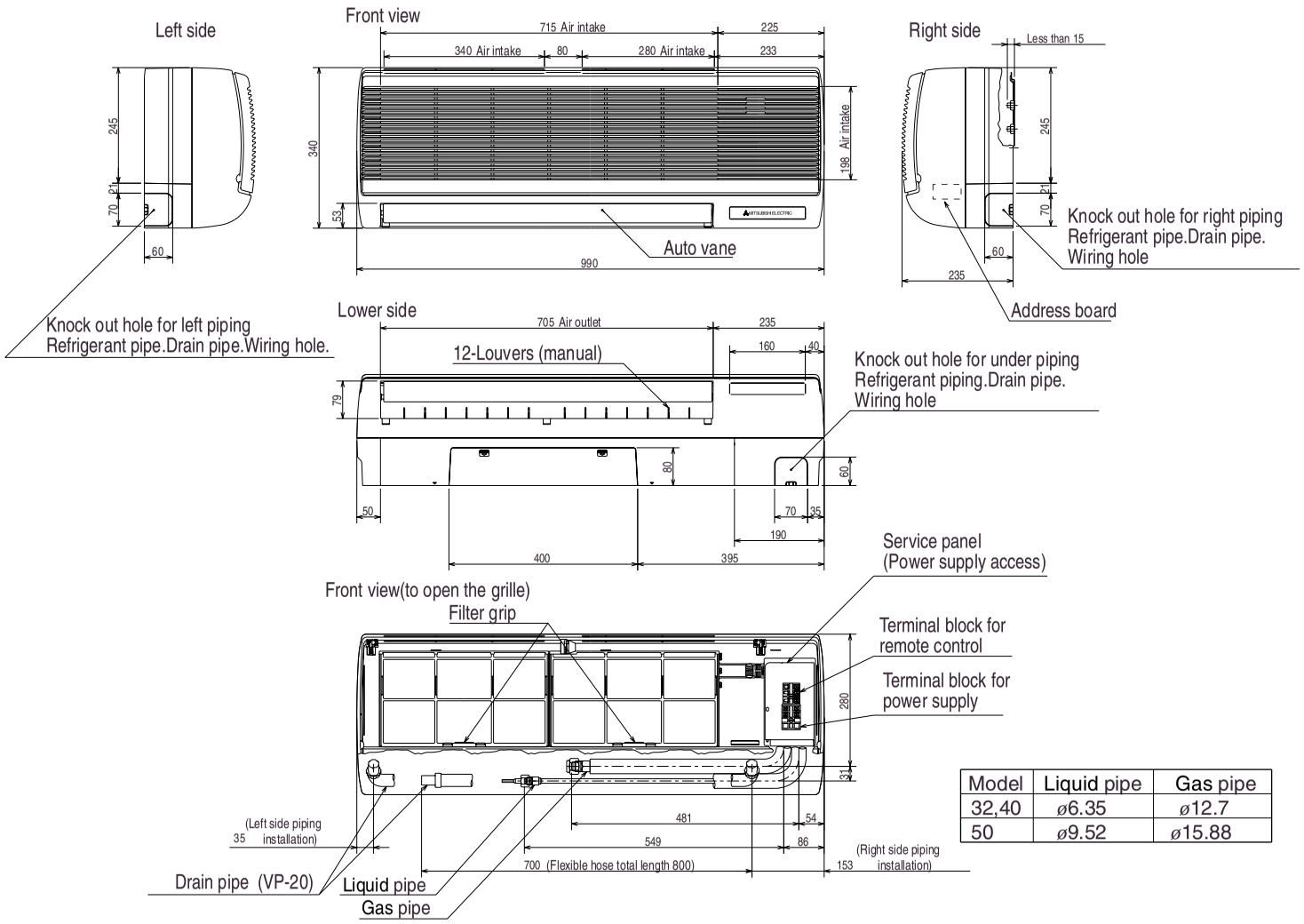


4. External Dimensions

PKFY-P20, 25VAM-A

Unit : mm





Model	Liquid pipe	Gas pipe
32,40	ø6.35	ø12.7
50	ø9.52	ø15.88

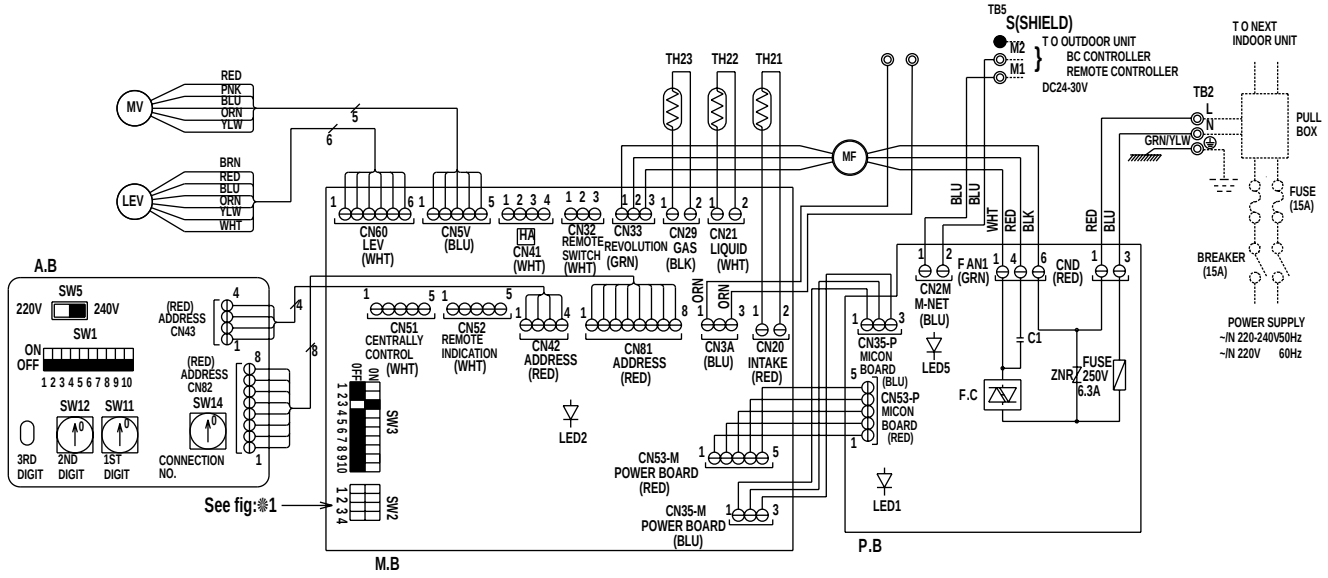
Unit : mm

5. Electrical Wiring Diagrams

5-1 PKFY-P-VAM-A

Legend

Symbol	Name		Symbol	Name		Symbol	Name	
M.B	Indoor controller board		TH23	Thermistor	Pipe temp. detection/Gas (0˚C / 15kΩ, 25˚C / 5.4kΩ)	TB2	Terminal block	Power supply
CN32	Connector	Remote switch				TB15		MA-Remote controller
CN41		HA terminal - A	P.B	Indoor power board		A.B	Circuit board	Address
CN51		Centrally control	ZNR	Varistor		SW1 <A.B>	Switch	Mode selection
CN52		Remote indication	FUSE	Fuse (6.3A)		SW5 <A.B>		Voltage selection
SW2	Switch	Capacity code	F.C	Fan phase control		SW11 <A.B>		Address setting 1st digit
SW3		Mode selection	MF	Fan motor		SW12 <A.B>		Address setting 2nd digit
TH21	Thermistor	Room temp. detection (0˚C / 15kΩ, 25˚C / 5.4kΩ)	C1	Capacity (fan motor)		SW14 <A.B>		Connection No.
			MV	Vane motor				
TH22		Pipe temp. detection/liquid (0˚C / 15kΩ, 25˚C / 5.4kΩ)	LEV	Linear expansion valve				



Note

1. At servicing for outdoor unit, always follow the wiring diagram of outdoor unit.
2. In case of using MA-Remote controller, please connect to TB15.(Remote controller wire is non-polar.)
3. In case of using M-NET, please connect to the wire.(BLU, two wire) <M1, M2>of CN2M (Transmission line is non-polar.)
4. Symbols used in wiring diagram above are, ◎ : terminal block, ⊖: connector, ● : direct wire connection.
5. The setting of the SW2 dip switches differs in the capacity for the detail, refer to the fig: ※1.
6. Please set the switch SW5 accordng to the power supply voltage.
   SW5 to 240V side when the power supply is 230 and 240 volts.
   When the power supply is 220 volts, set SW5 to 220V side.

Led on indoor board for sevice

Mark	Meaning	Function
LED1	Main power supply	Main power supply (indoor unit:220-240V) power on ⇌ lamp is lit
LED2	Power supply for MA-Remote controller	Power supply for MA-Remote controller on → lamp is lit

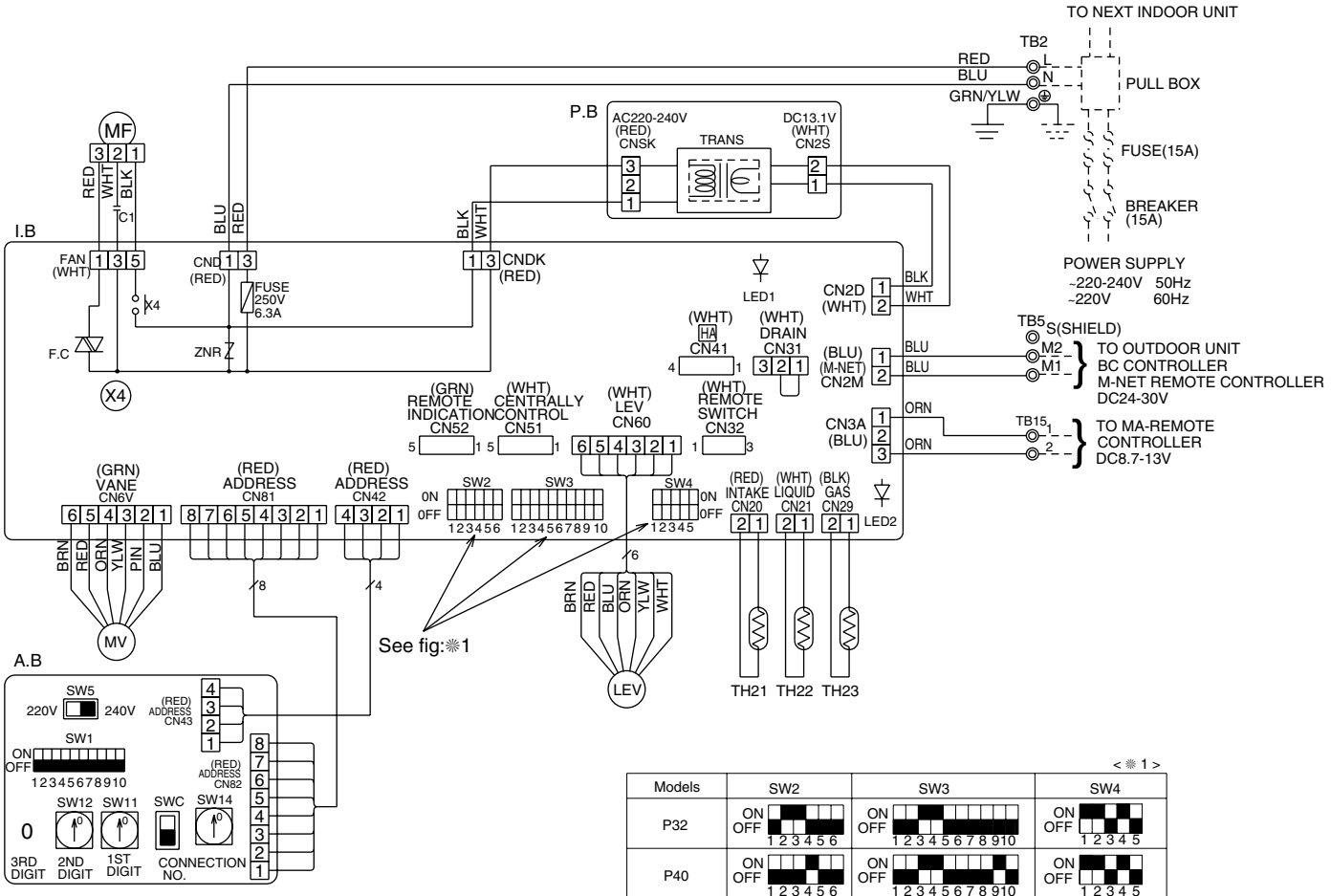
<※ 1>

MODELS	SW2	MODELS	SW2
PKFY-P20VAM	ON OFF 1 2 3 4	PKFY-P25VAM	ON OFF 1 2 3 4

5-2 PKFY-P-VGM-A

PKFY-P32VGM , PKFY-P40VGM , PKFY-P50VGM

Symbol	Name		Symbol	Name		Symbol	Name	
I.B	Indoor controller board		TH21	Thermistor	Room temp. detection (0ßC/15k‰,25ßC/5.4k‰)	A.B	Circuit board	
CN32	Connector	Remote switch				SW1	Switch	Mode selection
CN41		HA terminal-A	TH22		Pipe temp. detection/liquid (0ßC/15k‰,25ßC/5.4k‰)	SW5		Voltage selection
CN51		Centrally control				SW11		Address setting 1st digit
CN52		Remote indication	TH23		Pipe temp. detection/Gas (0ßC/15k‰,25ßC/5.4k‰)	SW12		Address setting 2nd digit
SW2	Switch	Capacity code				SW14		Connection No.
SW3		Mode selection	MF	Fan motor (with inner thermostat)		SWC		Option selector
SW4		Model selection	C1	Capacitor (fan motor)		P.B	Indoor power board	
ZNR	Varistor		MV	Vane motor				
X4	Aux.Relay (Fan motor)		TB2	Terminal block	Power supply			
FUSE	Fuse (6.3A)		TB5		Transmission			
F.C	Fan phase control		TB15		MA-Remote controller			
			LEV	Linear expansion valve				



< ※1 >

Models	SW2	SW3	SW4
P32	ON OFF 1 2 3 4 5 6	ON OFF 1 2 3 4 5 6 7 8 9 10	ON OFF 1 2 3 4 5
P40	ON OFF 1 2 3 4 5 6	ON OFF 1 2 3 4 5 6 7 8 9 10	ON OFF 1 2 3 4 5
P50	ON OFF 1 2 3 4 5 6	ON OFF 1 2 3 4 5 6 7 8 9 10	ON OFF 1 2 3 4 5

NOTE

1.At servicing for outdoor unit,always follow the wiring diagram of outdoor unit.
2.In case of using MA-Remote controller, please connect to TB15.
(Remote controller wire is non-polar.)
3.In case of using M-NET, please connect to TB5.(Transmission line is non-polar.)
4.Symbol[S] of TB5 is the shield wire connection.
5.Symbols used in wiring diagram above are,
◎:Terminal block, □□□:Connector.
6.The setting of the SW2 dip switches differs in the capacity. For the detail,refer to the fig: ※1.
7.Please set the switch SW5 according to the power supply voltage.
Set SW5 to 240V side when the power supply is 230 and 240 volts.
When the power supply is 220 volts,set SW5 to 220V side.

Led on indoor board for sevice

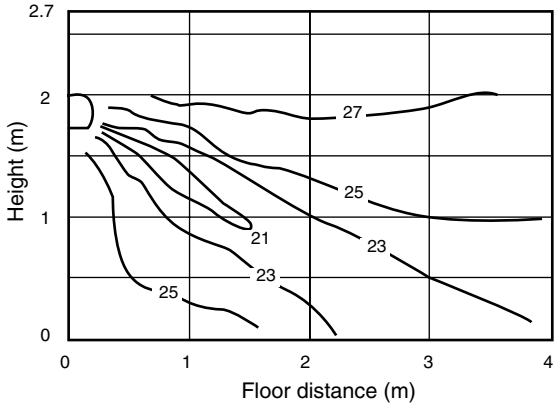
Mark	Meaning	Function
LED1	Main power supply	Main power supply (indoor unit:220-240V) power on ⇒ lamp is lit
LED2	Power supply for MA-Remote controller	Power supply for MA-Remote controller on ➡ lamp is lit

6. Temperature/Airflow distribution

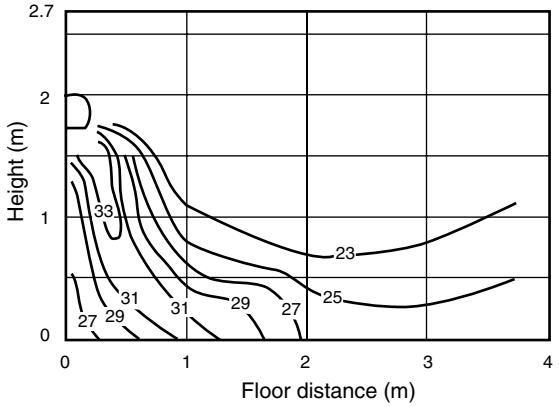
6-1 PKFY-P-VAM-A

● Temperature distribution

<Cooling mode>
Horizontal air flow

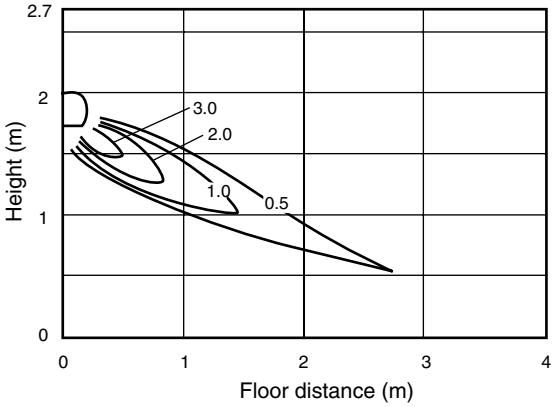


<Heating mode>
Downward air flow

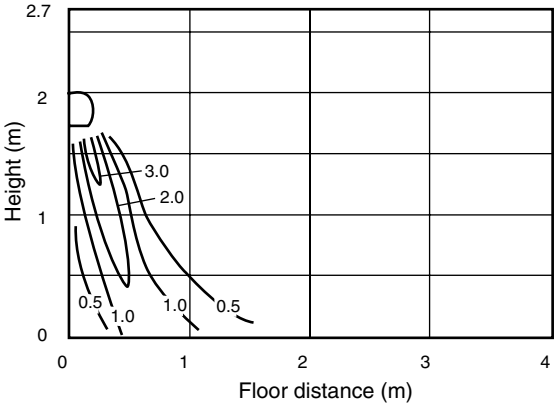


● Airflow distribution

<Fan mode>
Horizontal air flow



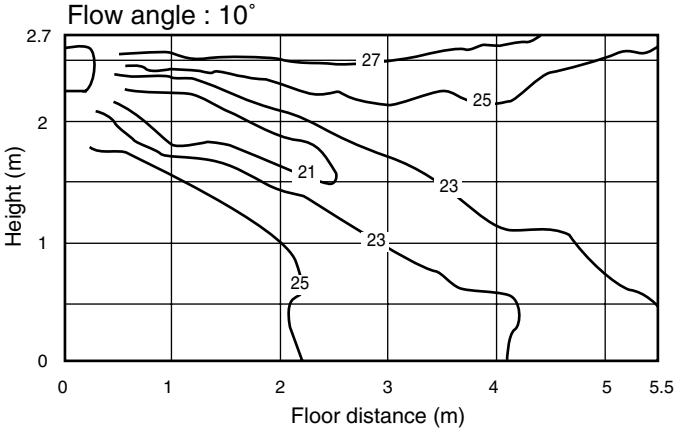
<Fan mode>
Downward air flow



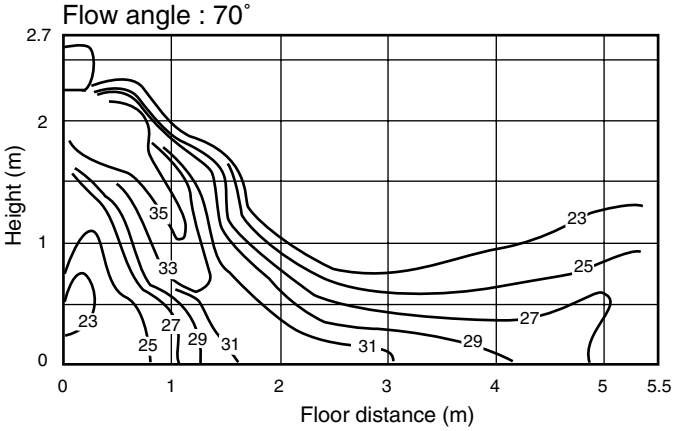
6-2 PKFY-P-VGM-A

● Temperature distribution

<Cooling mode>
Flow angle : 10˚

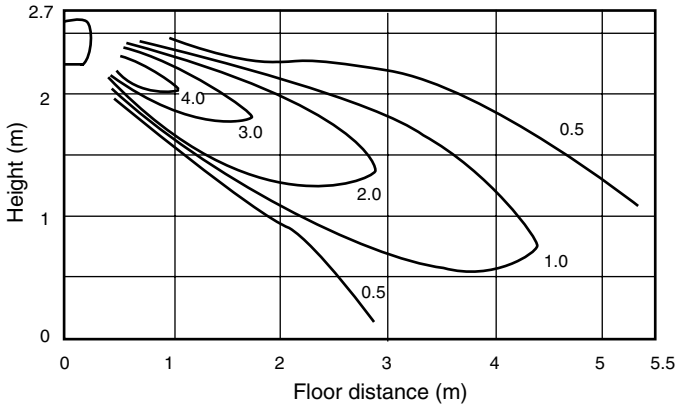


<Heating mode>
Flow angle : 70˚

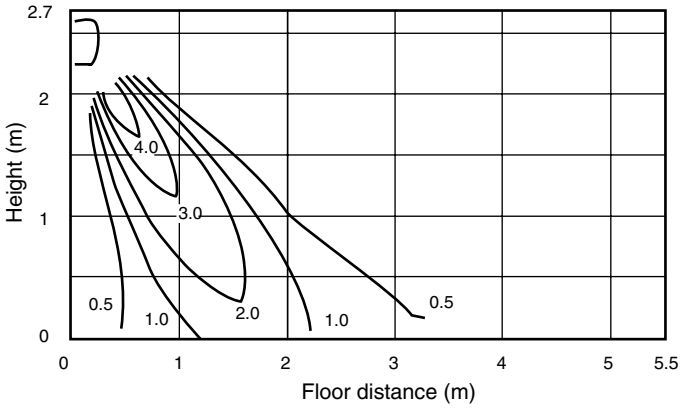


● Airflow distribution

<Fan mode>
Flow angle : 10˚



<Fan mode>
Flow angle : 70˚



Ceiling suspended PCFY-P-VGM-A

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1. Specifications

			PCFY-P40VGM-A	PCFY-P63VGM-A	PCFY-P100VGM-A	PCFY-P125VGM-A
Power source			~ 220-240V 50Hz / ~220V 60Hz			
Cooling capacity	※1	kW	4.5	7.1	11.2	14.0
	※2	kcal/h	4,000	6,300	10,000	12,500
Heating capacity	※1	kW	5.0	8.0	12.5	16.0
Power consumption	Cooling	kW	0.10	0.13	0.16	0.24
	Heating	kW	0.10	0.13	0.16	0.24
Current	Cooling	A	0.46	0.60	0.73	1.10
	Heating	A	0.46	0.60	0.73	1.10
External finish(Munsel No.)			0.70Y 8.59/0.97			
Dimension ※3	Height	mm	210		270	
	Width	mm	1,000	1,310		1,620
	Depth	mm	680			
Net weight ※3		kg	27	34	37	43
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)			
Fan	Type		Sirocco fan× 2	Sirocco fan× 3		Sirocco fan× 4
	Airflow rate ※3 (Lo-Mid2-Mid1-Hi)	m^3/min	8-10-11-12	12-14-16-18	18-20-23-25	26-28-32-35
	External static pressure	Pa	0			
Motor	Type		Single phase induction motor			
	Output	kW	0.054	0.070	0.090	0.150
Air filter			PP Honeycomb (long life)			
Refrigerant pipe dimension	Gas (Flare)	mm	ø 12.7	ø 15.88	ø 19.05	
	Liquid (Flare)	mm	ø 6.35	ø 9.52		
Drain pipe dimension			VP-25			
Noise level (Lo-Mid2-Mid1-Hi) ※3		dB(A)	29-33-36-38	32-34-37-39	36-38-41-43	37-39-42-44

Note: ※1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19˚CWB,Outdoor 35˚CDB
Heating : Indoor 20˚CDB,Outdoor 7˚CDB/6˚CWB
※2 Cooling capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27˚CDB/19.5˚CWB,Outdoor 35˚CDB (WR2: water 30˚C)
※3 External dimension/net weight are shown in (unit/panel),and airflw rate/noise level are in (low-middle 2-middle 1-high).

2. Capacity tables

2-1.Cooling Capacity (In combination with PUMY-125YM(A))

PCFY-P-VGM-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.							
		23˚CDB 16˚CWB		25˚CDB 18˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC
40 (4.5)	20.0	4.5	3.1	4.7	3.2	5.0	3.2	5.3	3.3
	22.5	4.4	3.1	4.6	3.2	5.0	3.2	5.2	3.3
	25.0	4.3	3.1	4.6	3.2	4.9	3.2	5.2	3.3
	27.5	4.3	3.0	4.6	3.2	4.9	3.2	5.1	3.2
	30.0	4.2	3.0	4.5	3.2	4.8	3.1	5.1	3.2
	32.5	4.2	3.0	4.4	3.1	4.7	3.1	5.0	3.2
	35.0	4.1	2.9	4.4	3.1	4.7	3.1	5.0	3.2
	37.5	4.1	2.9	4.3	3.1	4.6	3.0	4.9	3.1
	40.0	4.0	2.9	4.3	3.0	4.5	3.0	4.8	3.1
	46.0	3.8	2.8	4.1	3.0	4.3	2.9	4.6	3.0
63 (7.1)	20.0	7.0	5.0	7.4	5.1	7.9	5.1	8.3	5.3
	22.5	6.9	4.9	7.3	5.1	7.8	5.1	8.2	5.2
	25.0	6.9	4.9	7.3	5.1	7.7	5.1	8.2	5.2
	27.5	6.8	4.8	7.2	5.0	7.7	5.0	8.1	5.2
	30.0	6.7	4.8	7.1	5.0	7.5	5.0	8.0	5.1
	32.5	6.6	4.7	7.0	5.0	7.5	4.9	7.9	5.1
	35.0	6.5	4.7	6.9	4.9	7.3	4.9	7.8	5.0
	37.5	6.4	4.6	6.8	4.9	7.2	4.8	7.7	5.0
	40.0	6.3	4.6	6.7	4.8	7.2	4.8	7.6	4.9
	46.0	6.1	4.5	6.5	4.7	6.9	4.6	7.3	4.8
100 (11.2)	20.0	11.1	7.8	11.6	8.1	12.5	8.1	13.1	8.3
	22.5	10.9	7.8	11.5	8.1	12.3	8.0	13.0	8.3
	25.0	10.8	7.7	11.5	8.0	12.2	8.0	12.9	8.2
	27.5	10.7	7.6	11.3	8.0	12.1	7.9	12.8	8.2
	30.0	10.5	7.5	11.2	7.9	11.9	7.8	12.6	8.1
	32.5	10.4	7.5	11.1	7.8	11.8	7.8	12.5	8.0
	35.0	10.2	7.4	10.9	7.8	11.6	7.7	12.3	7.9
	37.5	10.1	7.3	10.8	7.7	11.4	7.6	12.2	7.9
	40.0	10.0	7.3	10.6	7.6	11.3	7.6	12.0	7.8
	46.0	9.6	7.1	10.2	7.4	10.8	7.3	11.5	7.6
125 (14.0)	20.0	13.9	9.9	14.6	10.3	15.6	10.2	16.4	10.5
	22.5	13.7	9.8	14.4	10.2	15.4	10.1	16.2	10.4
	25.0	13.5	9.7	14.3	10.1	15.3	10.1	16.1	10.3
	27.5	13.4	9.6	14.2	10.1	15.1	10.0	16.0	10.3
	30.0	13.2	9.5	14.0	10.0	14.9	9.9	15.8	10.2
	32.5	13.0	9.4	13.8	9.9	14.7	9.8	15.6	10.1
	35.0	12.8	9.3	13.7	9.8	14.5	9.7	15.4	10.0
	37.5	12.6	9.2	13.4	9.7	14.3	9.6	15.2	9.9
	40.0	12.5	9.1	13.3	9.6	14.1	9.5	15.0	9.8
	46.0	12.0	8.9	12.8	9.4	13.5	9.2	14.4	9.6

2-2.Heating Capacity (In combination with PUMY-125YM(A))

PCFY-P-VGM-A

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB		
		15.0	20.0	25.0
	˚CWB	SHC	SHC	SHC
40	-12.0	3.2	3.1	3.1
	-10.0	3.4	3.3	3.2
	-5.0	3.8	3.8	3.7
	0.0	4.3	4.3	4.2
	2.5	4.6	4.6	4.5
	6.0	5.0	5.0	4.9
	7.5	5.2	5.2	5.0
	10.0	5.5	5.5	5.0
	12.5	5.9	5.5	5.0
	15.5	6.2	5.5	5.0
63	-12.0	5.1	5.0	4.9
	-10.0	5.4	5.3	5.2
	-5.0	6.1	6.0	5.9
	0.0	6.9	6.9	6.8
	2.5	7.4	7.3	7.2
	6.0	8.0	8.0	7.9
	7.5	8.3	8.3	7.9
	10.0	8.8	8.8	7.9
	12.5	9.4	8.8	7.9
	15.5	9.8	8.8	7.9

SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB		
		15.0	20.0	25.0
	˚CWB	SHC	SHC	SHC
100	-12.0	8.0	7.8	7.7
	-10.0	8.4	8.2	8.1
	-5.0	9.6	9.4	9.3
	0.0	10.9	10.7	10.6
	2.5	11.5	11.4	11.3
	6.0	12.6	12.5	12.3
	7.5	13.0	12.9	12.4
	10.0	13.8	13.7	12.4
	12.5	14.6	13.8	12.4
	15.5	15.4	13.8	12.4
125	-12.0	10.2	10.0	9.8
	-10.0	10.7	10.6	10.4
	-5.0	12.2	12.1	11.9
	0.0	13.9	13.8	13.6
	2.5	14.8	14.7	14.5
	6.0	16.1	16.0	15.8
	7.5	16.7	16.6	15.8
	10.0	17.7	17.6	15.8
	12.5	18.7	17.7	15.8
	15.5	19.7	17.7	15.8

2-3.Cooling Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PCFY-P-VGM-A

CA:Capacity(kW)
SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
40	20.0	4.4	3.1	4.5	3.2	4.7	3.1	4.8	3.1	4.9	3.2	5.0	3.1	5.2	3.0
(4.5)	22.5	4.4	3.1	4.5	3.1	4.6	3.1	4.7	3.1	4.8	3.1	5.0	3.1	5.2	3.0
	25.0	4.3	3.1	4.4	3.1	4.6	3.0	4.7	3.0	4.8	3.1	5.0	3.0	5.1	3.0
	27.5	4.3	3.0	4.4	3.1	4.5	3.0	4.6	3.0	4.7	3.1	4.9	3.0	5.1	2.9
	30.0	4.2	3.0	4.3	3.1	4.5	3.0	4.6	3.0	4.7	3.1	4.9	3.0	5.0	2.9
	32.5	4.2	3.0	4.3	3.0	4.5	3.0	4.5	3.0	4.6	3.1	4.8	3.0	5.0	2.9
	35.0	4.1	3.0	4.2	3.0	4.4	2.9	4.5	3.0	4.6	3.0	4.8	3.0	5.0	2.9
	37.5	4.1	2.9	4.2	3.0	4.4	2.9	4.5	2.9	4.5	3.0	4.7	3.0	4.9	2.9
	40.0	4.1	2.9	4.1	3.0	4.3	2.9	4.4	2.9	4.5	3.0	4.7	2.9	4.9	2.9
	43.0	4.0	2.9	4.1	2.9	4.3	2.9	4.4	2.9	4.4	3.0	4.6	2.9	4.8	2.8
63	20.0	7.0	4.9	7.1	5.0	7.4	4.9	7.5	4.9	7.7	5.0	8.0	4.9	8.2	4.7
(7.1)	22.5	6.9	4.9	7.0	5.0	7.3	4.8	7.5	4.9	7.6	5.0	7.9	4.9	8.2	4.7
	25.0	6.8	4.8	7.0	4.9	7.2	4.8	7.4	4.8	7.5	5.0	7.8	4.8	8.1	4.7
	27.5	6.7	4.8	6.9	4.9	7.2	4.8	7.3	4.8	7.5	4.9	7.7	4.8	8.0	4.7
	30.0	6.7	4.8	6.8	4.9	7.1	4.7	7.2	4.8	7.4	4.9	7.7	4.8	8.0	4.6
	32.5	6.6	4.7	6.7	4.8	7.0	4.7	7.2	4.7	7.3	4.9	7.6	4.7	7.9	4.6
	35.0	6.5	4.7	6.7	4.8	7.0	4.7	7.1	4.7	7.2	4.8	7.5	4.7	7.8	4.6
	37.5	6.5	4.7	6.6	4.7	6.9	4.6	7.0	4.7	7.2	4.8	7.5	4.7	7.7	4.6
	40.0	6.4	4.6	6.5	4.7	6.8	4.6	7.0	4.6	7.1	4.8	7.4	4.7	7.7	4.5
	43.0	6.3	4.6	6.4	4.7	6.7	4.6	6.9	4.6	7.0	4.7	7.3	4.6	7.6	4.5
100	20.0	11.0	7.8	11.2	7.9	11.6	7.7	11.9	7.7	12.1	8.0	12.5	7.7	13.0	7.5
(11.2)	22.5	10.9	7.7	11.1	7.9	11.5	7.7	11.8	7.7	12.0	7.9	12.4	7.7	12.9	7.5
	25.0	10.8	7.7	11.0	7.8	11.4	7.6	11.6	7.7	11.9	7.9	12.3	7.7	12.8	7.4
	27.5	10.6	7.6	10.9	7.7	11.3	7.6	11.5	7.6	11.8	7.8	12.2	7.6	12.7	7.4
	30.0	10.5	7.5	10.8	7.7	11.2	7.5	11.4	7.6	11.6	7.8	12.1	7.6	12.5	7.3
	32.5	10.4	7.5	10.6	7.6	11.1	7.5	11.3	7.5	11.5	7.7	12.0	7.5	12.4	7.3
	35.0	10.3	7.4	10.5	7.6	11.0	7.4	11.2	7.5	11.4	7.7	11.9	7.5	12.3	7.3
	37.5	10.2	7.4	10.4	7.5	10.9	7.4	11.1	7.4	11.3	7.6	11.8	7.4	12.2	7.2
	40.0	10.1	7.3	10.3	7.5	10.8	7.3	11.0	7.4	11.2	7.6	11.6	7.4	12.1	7.2
	43.0	9.9	7.2	10.2	7.4	10.6	7.2	10.8	7.3	11.1	7.5	11.5	7.3	12.0	7.1
125	20.0	13.7	9.8	14.0	10.0	14.6	9.7	14.8	9.8	15.1	10.1	15.7	9.8	16.2	9.5
(14.0)	22.5	13.6	9.7	13.9	9.9	14.4	9.7	14.7	9.7	15.0	10.0	15.5	9.7	16.1	9.4
	25.0	13.4	9.6	13.7	9.8	14.3	9.6	14.6	9.6	14.8	9.9	15.4	9.7	16.0	9.4
	27.5	13.3	9.6	13.6	9.8	14.1	9.5	14.4	9.6	14.7	9.9	15.3	9.6	15.8	9.3
	30.0	13.2	9.5	13.4	9.7	14.0	9.5	14.3	9.5	14.6	9.8	15.1	9.6	15.7	9.3
	32.5	13.0	9.4	13.3	9.6	13.9	9.4	14.1	9.5	14.4	9.8	15.0	9.5	15.5	9.2
	35.0	12.9	9.4	13.2	9.6	13.7	9.3	14.0	9.4	14.3	9.7	14.8	9.4	15.4	9.2
	37.5	12.7	9.3	13.0	9.5	13.6	9.3	13.9	9.3	14.1	9.6	14.7	9.4	15.3	9.1
	40.0	12.6	9.2	12.9	9.4	13.4	9.2	13.7	9.3	14.0	9.6	14.6	9.3	15.1	9.1
	43.0	12.4	9.1	12.7	9.3	13.3	9.1	13.6	9.2	13.8	9.5	14.4	9.3	15.0	9.0

2-4.Heating Capacity (In combination with PU(H)Y,PURY-(P)200·250YMF-C)

PCFY-P-VGM-A

SHC:Sensible heat Capacity(kW)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15.0	20.0	25.0	27.0
	˚CWB	SHC	SHC	SHC	SHC
40	-15.0	3.3	3.3	3.3	3.3
	-10.0	3.8	3.8	3.7	3.5
	-5.0	4.3	4.2	3.9	3.5
	0.0	4.8	4.7	3.9	3.5
	2.5	5.0	5.0	3.9	3.5
	6.0	5.1	5.0	3.9	3.5
	7.5	5.3	5.0	3.9	3.5
	10.0	5.6	5.0	3.9	3.5
	12.5	6.0	5.0	3.9	3.5
	15.5	6.1	5.0	3.9	3.5
63	-15.0	5.4	5.3	5.2	5.2
	-10.0	6.1	6.0	6.0	5.5
	-5.0	6.9	6.8	6.2	5.5
	0.0	7.6	7.5	6.2	5.5
	2.5	8.0	7.9	6.2	5.5
	6.0	8.1	8.0	6.2	5.5
	7.5	8.4	8.0	6.2	5.5
	10.0	9.0	8.0	6.2	5.5
	12.5	9.6	8.0	6.2	5.5
	15.5	9.7	8.0	6.2	5.5

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15.0	20.0	25.0	27.0
	˚CWB	SHC	SHC	SHC	SHC
100	-15.0	8.4	8.2	8.2	8.1
	-10.0	9.6	9.4	9.3	8.6
	-5.0	10.7	10.6	9.8	8.6
	0.0	11.9	11.8	9.8	8.6
	2.5	12.5	12.4	9.8	8.6
	6.0	12.6	12.5	9.8	8.6
	7.5	13.2	12.5	9.8	8.6
	10.0	14.1	12.5	9.8	8.6
	12.5	15.0	12.5	9.8	8.6
	15.5	15.1	12.5	9.8	8.6
125	-15.0	10.7	10.6	10.5	10.4
	-10.0	12.2	12.1	11.9	11.0
	-5.0	13.7	13.6	12.5	11.0
	0.0	15.3	15.1	12.5	11.0
	2.5	16.0	15.8	12.5	11.0
	6.0	16.2	16.0	12.5	11.0
	7.5	16.8	16.0	12.5	11.0
	10.0	18.0	16.0	12.5	11.0
	12.5	19.1	16.0	12.5	11.0
	15.5	19.4	16.0	12.5	11.0

2-5.Cooling capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PCFY-P-VGM-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚CDB	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
40	20.0	3625	2577	3803	2676	4098	2681	4315	2747	4383	2816	4640	2775	4917	2731
	22.5	3625	2577	3788	2669	4063	2664	4262	2723	4329	2791	4579	2749	4848	2704
	25.0	3597	2562	3751	2650	4017	2642	4210	2699	4274	2767	4518	2724	4778	2677
	27.5	3568	2547	3715	2631	3971	2620	4157	2676	4220	2742	4457	2699	4708	2650
	30.0	3539	2532	3678	2613	3925	2598	4105	2652	4165	2718	4396	2673	4639	2624
	32.5	3511	2517	3641	2594	3879	2576	4052	2628	4111	2694	4335	2648	4569	2598
	35.0	3482	2502	3605	2576	3833	2555	4000	2605	4056	2670	4274	2624	4500	2572
	37.5	3453	2487	3568	2558	3787	2533	3948	2582	4002	2646	4213	2599	4430	2546
	40.0	3424	2472	3531	2539	3741	2512	3895	2558	3947	2623	4152	2574	4361	2520
	43.0	3389	2454	3487	2518	3686	2486	3832	2531	3882	2594	4078	2545	4277	2489
63	20.0	5710	4082	5989	4241	6455	4247	6796	4354	6904	4464	7309	4399	7744	4329
	22.5	5710	4082	5966	4229	6399	4220	6713	4316	6818	4426	7212	4359	7635	4287
	25.0	5665	4058	5908	4200	6326	4186	6630	4279	6732	4387	7116	4319	7525	4245
	27.5	5620	4035	5851	4171	6254	4152	6548	4242	6646	4349	7020	4280	7416	4204
	30.0	5574	4012	5793	4142	6181	4118	6465	4205	6560	4312	6924	4241	7306	4162
	32.5	5529	3988	5735	4113	6109	4084	6383	4168	6475	4274	6828	4201	7197	4121
	35.0	5484	3965	5677	4084	6037	4050	6300	4131	6389	4237	6731	4163	7087	4080
	37.5	5438	3942	5620	4055	5964	4016	6217	4095	6303	4199	6635	4124	6978	4040
	40.0	5393	3918	5562	4027	5892	3983	6135	4059	6217	4162	6539	4085	6868	3999
	43.0	5338	3891	5493	3993	5805	3943	6036	4015	6114	4118	6424	4040	6737	3951
100	20.0	9063	6490	9507	6744	10245	6753	10787	6924	10958	7100	11601	6996	12293	6884
	22.5	9063	6490	9470	6726	10157	6711	10656	6864	10822	7040	11448	6933	12119	6817
	25.0	8993	6454	9378	6679	10042	6657	10525	6805	10686	6979	11296	6870	11945	6751
	27.5	8920	6417	9287	6633	9927	6602	10393	6746	10550	6919	11143	6808	11771	6686
	30.0	8848	6380	9195	6588	9812	6549	10262	6688	10413	6860	10990	6746	11597	6620
	32.5	8776	6343	9103	6542	9697	6495	10131	6630	10277	6800	10837	6684	11423	6555
	35.0	8704	6306	9012	6496	9582	6441	10000	6572	10141	6741	10685	6622	11250	6491
	37.5	8632	6269	8920	6451	9467	6388	9869	6514	10005	6682	10532	6561	11076	6427
	40.0	8560	6232	8828	6406	9352	6335	9738	6457	9868	6623	10379	6500	10902	6363
	43.0	8474	6188	8718	6351	9214	6272	9580	6388	9705	6553	10196	6428	10693	6286
125	20.0	11329	8173	11883	8495	12807	8505	13484	8723	13698	8949	14501	8819	15366	8679
	22.5	11329	8173	11837	8472	12696	8453	13320	8650	13527	8874	14310	8741	15149	8597
	25.0	11241	8128	11723	8415	12552	8385	13156	8576	13357	8800	14119	8663	14931	8515
	27.5	11151	8082	11608	8358	12408	8318	12992	8504	13187	8725	13929	8586	14714	8434
	30.0	11060	8036	11494	8301	12265	8252	12828	8431	13017	8651	13738	8509	14497	8353
	32.5	10970	7990	11379	8244	12121	8185	12664	8359	12846	8577	13547	8432	14279	8272
	35.0	10880	7944	11265	8188	11977	8119	12500	8287	12676	8504	13356	8356	14062	8192
	37.5	10790	7899	11150	8132	11834	8053	12336	8216	12506	8431	13165	8280	13845	8113
	40.0	10700	7853	11035	8076	11690	7987	12172	8145	12335	8358	12974	8205	13627	8034
	43.0	10592	7799	10898	8008	11518	7908	11975	8060	12131	8272	12745	8115	13367	7939

2-6.Heating capacity
(In combination with PUHY-(P)315·400·500·600·650·700·750Y(S)MF-B,Y(S)MC)

PCFY-P-VGM-A

SHC:Sensible heat Capacity(kcal/h)

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚CWB	SHC	SHC	SHC	SHC
40	-15.0	3111	3064	3018	2999
	-10.0	3549	3503	3456	3201
	-5.0	3987	3941	3619	3201
	0.0	4426	4379	3619	3201
	2.5	4645	4500	3619	3201
	6.0	4686	4500	3619	3201
	7.5	4883	4500	3619	3201
	10.0	5211	4500	3619	3201
	12.5	5539	4500	3619	3201
	15.5	5613	4500	3619	3201
63	-15.0	4908	4835	4761	4732
	-10.0	5599	5526	5453	5051
	-5.0	6291	6218	5709	5051
	0.0	6983	6910	5709	5051
	2.5	7329	7100	5709	5051
	6.0	7393	7100	5709	5051
	7.5	7704	7100	5709	5051
	10.0	8221	7100	5709	5051
	12.5	8739	7100	5709	5051
	15.5	8857	7100	5709	5051

Unit size	Outdoor air temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚CWB	SHC	SHC	SHC	SHC
100	-15.0	7742	7626	7511	7465
	-10.0	8833	8718	8602	7967
	-5.0	9924	9809	9006	7967
	0.0	11015	10900	9006	7967
	2.5	11561	11200	9006	7967
	6.0	11662	11200	9006	7967
	7.5	12152	11200	9006	7967
	10.0	12969	11200	9006	7967
	12.5	13786	11200	9006	7967
	15.5	13971	11200	9006	7967
125	-15.0	9677	9533	9389	9331
	-10.0	11041	10897	10753	9959
	-5.0	12405	12261	11258	9959
	0.0	13769	13625	11258	9959
	2.5	14451	14000	11258	9959
	6.0	14577	14000	11258	9959
	7.5	15190	14000	11258	9959
	10.0	16211	14000	11258	9959
	12.5	17232	14000	11258	9959
	15.5	17464	14000	11258	9959

2-7.Cooling Capacity (In combination with PQRY-P200·250YMF-B)

PCFY-P-VGM-A

CA:Capacity(kcal/h)
SHC:Sensible heat Capacity(kcal/h)

Unit size	Water temp.	Indoor air temp.													
		21.5˚CDB 15˚CWB		23˚CDB 16˚CWB		25˚CDB 18˚CWB		27˚CDB 19.5˚CWB		28˚CDB 20˚CWB		30˚CDB 22˚CWB		32˚CDB 24˚CWB	
	˚C	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
40	10	3828	2684	3960	2757	4211	2735	4400	2787	4457	2849	4708	2803	4972	2752
	20	3689	2610	3816	2683	4058	2662	4240	2713	4295	2776	4537	2732	4791	2682
	30	3480	2501	3600	2574	3828	2553	4000	2605	4052	2668	4280	2626	4520	2579
	40	3028	2273	3132	2344	3330	2324	3480	2379	3525	2443	3724	2405	3932	2364
	45	2854	2187	2952	2259	3139	2240	3280	2294	3323	2359	3510	2323	3706	2284
63	10	6029	4249	6237	4367	6632	4332	6930	4415	7020	4516	7415	4443	7831	4362
	20	5810	4134	6010	4251	6391	4217	6678	4300	6765	4402	7145	4331	7546	4253
	30	5481	3963	5670	4080	6029	4046	6300	4131	6382	4234	6741	4166	7119	4092
	40	4768	3606	4933	3722	5245	3690	5481	3777	5552	3881	5865	3821	6194	3756
	45	4494	3473	4649	3588	4944	3557	5166	3645	5233	3750	5528	3693	5838	3630
100	10	9570	6755	9900	6945	10527	6888	11000	7021	11143	7183	11770	7066	12430	6937
	20	9222	6573	9540	6761	10144	6705	10600	6839	10738	7002	11342	6889	11978	6764
	30	8700	6304	9000	6490	9570	6436	10000	6572	10130	6736	10700	6628	11300	6509
	40	7569	5737	7830	5922	8326	5871	8700	6011	8813	6178	9309	6082	9831	5977
	45	7134	5526	7380	5710	7847	5660	8200	5802	8307	5970	8774	5879	9266	5779
125	10	11963	8502	12375	8743	13159	8672	13750	8843	13929	9052	14713	8906	15538	8744
	20	11528	8276	11925	8516	12680	8446	13250	8618	13422	8828	14178	8687	14973	8531
	30	10875	7942	11250	8181	11963	8112	12500	8287	12663	8498	13375	8364	14125	8215
	40	9461	7240	9788	7476	10407	7411	10875	7592	11016	7807	11636	7687	12289	7555
	45	8918	6977	9225	7213	9809	7150	10250	7333	10383	7549	10968	7434	11583	7310

2-8.Heating Capacity (In combination with PQRY-P200·250YMF-B)

PCFY-P-VGM-A

Unit size	Water temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚C	SHC	SHC	SHC	SHC
40	10	3902	3825	3098	2754
	20	4590	4500	3645	3240
	30	4590	4500	3645	3240
	40	4774	4680	3791	3370
	45	5233	5130	4155	3694
63	10	6156	6035	4888	4345
	20	7242	7100	5751	5112
	30	7242	7100	5751	5112
	40	7532	7384	5981	5316
	45	8256	8094	6556	5828

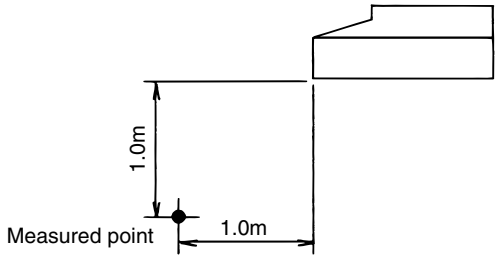
SHC:Sensible heat Capacity(kcal/h)

Unit size	Water temp.	Indoor air temp.:˚CDB			
		15	21	25	27
	˚C	SHC	SHC	SHC	SHC
100	10	9710	9520	7711	6854
	20	11424	11200	9072	8064
	30	11424	11200	9072	8064
	40	11881	11648	9435	8387
	45	13023	12768	10342	9193
125	10	12138	11900	9639	8568
	20	14280	14000	11340	10080
	30	14280	14000	11340	10080
	40	14851	14560	11794	10483
	45	16279	15960	12928	11491

3. Sound levels

3-1. Noise level

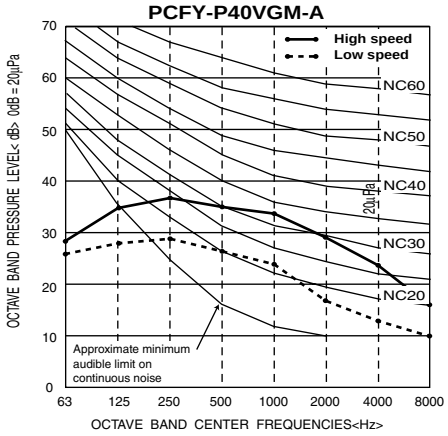
Ceiling suspended

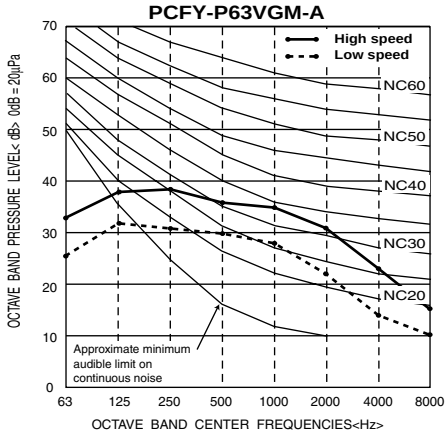


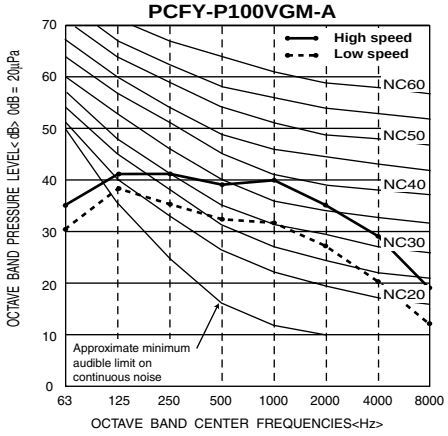
Noise level at anechoic room
(Low-Middle2-Middle1-High) Unit : dB(A)

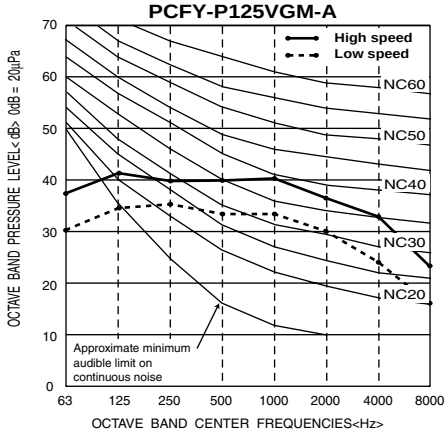
Model	Noise level (A weighted)
PCFY-P40VGM-A	29-33-36-38
PCFY-P63VGM-A	32-34-37-39
PCFY-P100VGM-A	36-38-41-43
PCFY-P125VGM-A	37-39-42-44

3-2. NC curves





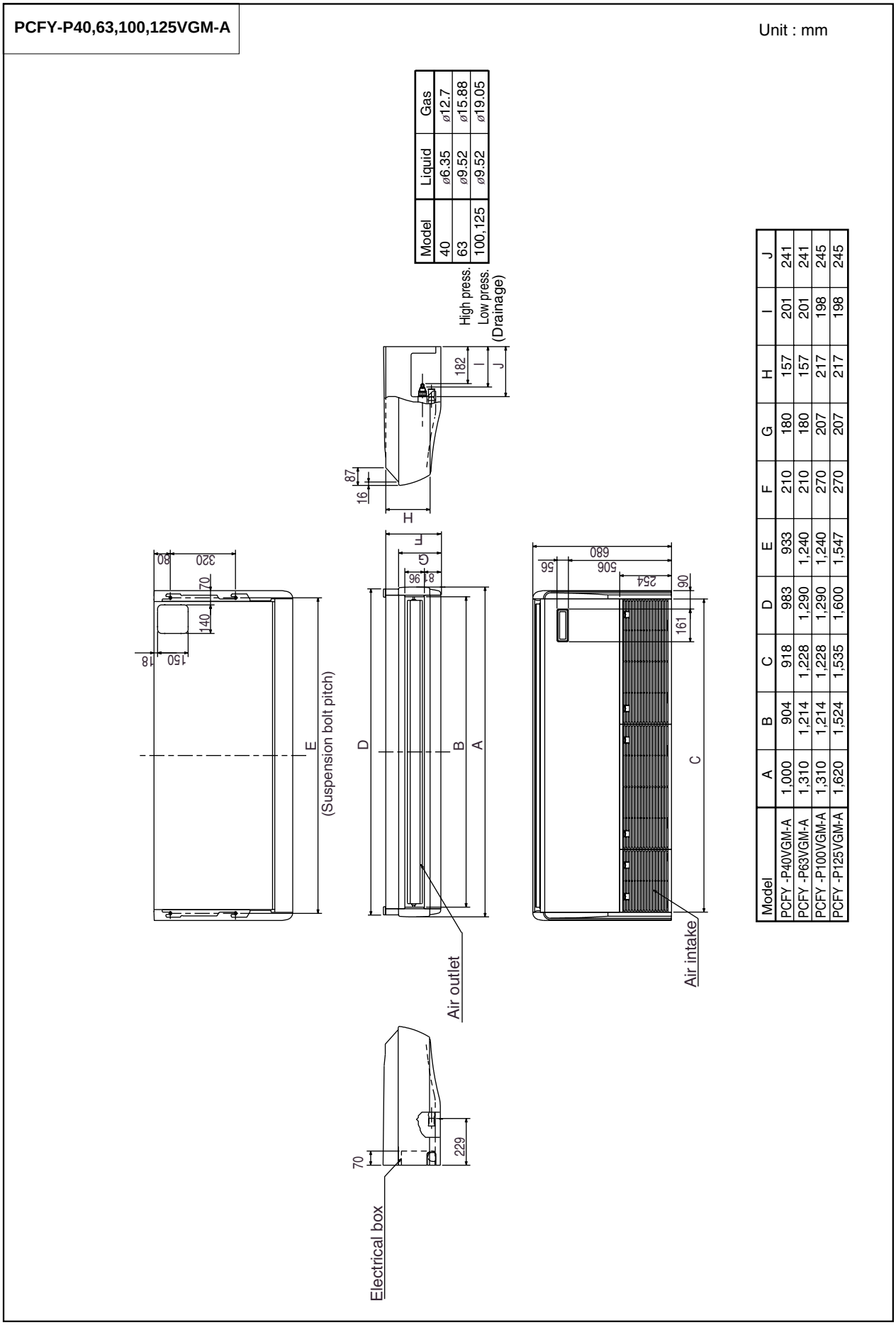




4. External Dimension

PCFY-P40,63,100,125VGM-A

Unit : mm



Model	A	B	C	D	E	F	G	H	I	J
PCFY -P40VGM-A	1,000	904	918	983	933	210	180	157	201	241
PCFY -P63VGM-A	1,310	1,214	1,228	1,290	1,240	210	180	157	201	241
PCFY -P100VGM-A	1,310	1,214	1,228	1,290	1,240	270	207	217	198	245
PCFY -P125VGM-A	1,620	1,524	1,535	1,600	1,547	270	207	217	198	245

5. Electrical Wiring Diagram

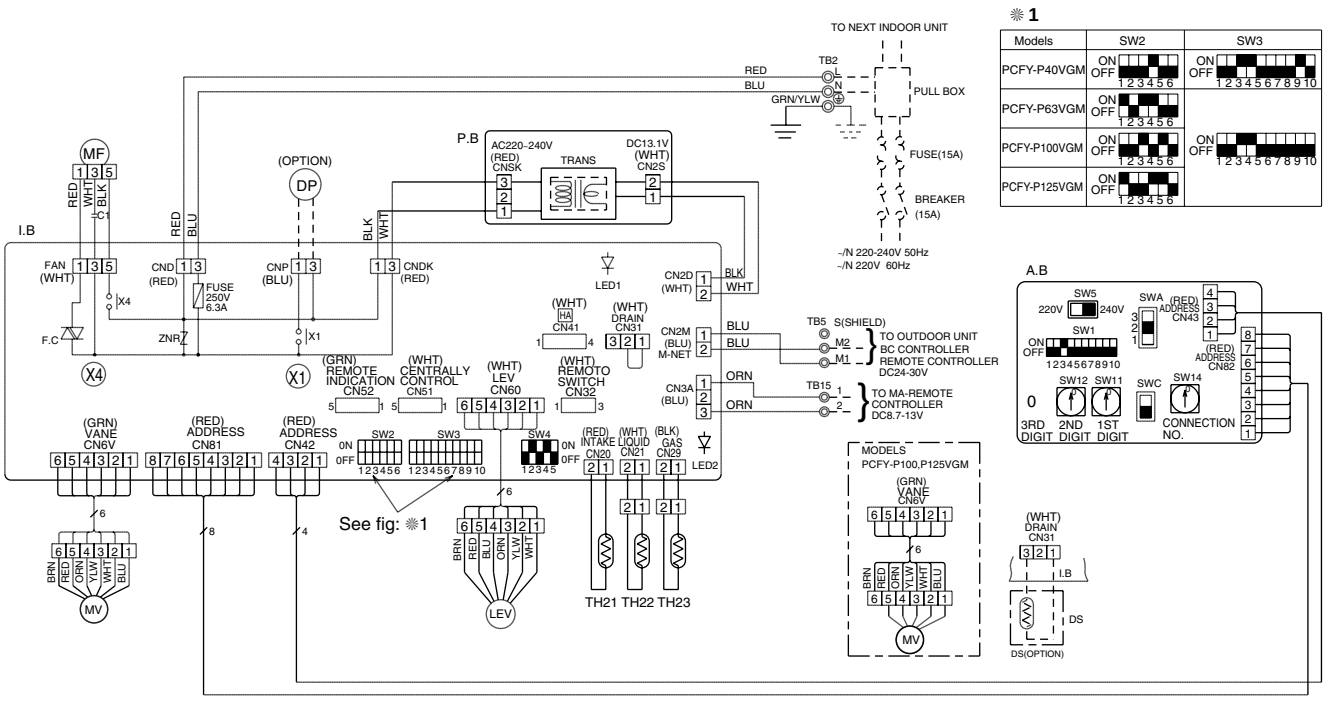
PCFY-P40VGM , PCFY-P63VGM , PCFY-P100VGM , PCFY-P125VGM

Symbol		Name		Symbol	Name	
I.B		Indoor controller board		C1	Capacitor(fan motor)	
	CN32	Connector	Remote switch	LEV	Linear expansion valve	
	CN51		Centrally control	MF	Fan motor(with inner thermo)	
	CN52		Remote indication	MV	Vane motor	
	CNP		Drain-up machine	TH21	Thermistor	Room temp. detection
	F.C	Fan phase control				(0ßC/15k‰,25ßC/5.4k‰)
	FUSE	Fuse (6.3A)		TH22		Pipe temp. detection / Liquid
	SW2	Switch	Capacity code			(0ßC/15k‰,25ßC/5.4k‰)
	SW3		Mode selection	TH23		Pipe temp. detection / Gas
	SW4		Model selection			(0ßC/15k‰,25ßC/5.4k‰)
	X1	Aux.Relay	Drain-up machine	TB2	Terminal	Power supply
	X4		Fan motor	TB5	block	Transmission
	ZNR	Varistor		TB15		MA-remote controller
P.B		Indoor power board		DP	Drain-up machine (OPTION)	
				DS	Drain sensor (OPTION)	

Symbol		Name	
A.B		Circuit board	Address
	SW1	Switch	Mode selection
	SW5		Voltage selection
	SW11		Address setting 1st digit
	SW12		Address setting 2nd digit
	SW14		Connection No.
	SWA	Ceiling heigh selector	
	SWC	Option selector	

Led on indoor board for sevice

Mark	Meaning	Function
LED1	Main power supply	Main power supply (indoor unit:220-240V) power on ⇒lamp is lit
LED2	Power supply for MA-Remote controller	Power supply for MA-Remote controller on ⇒lamp is lit



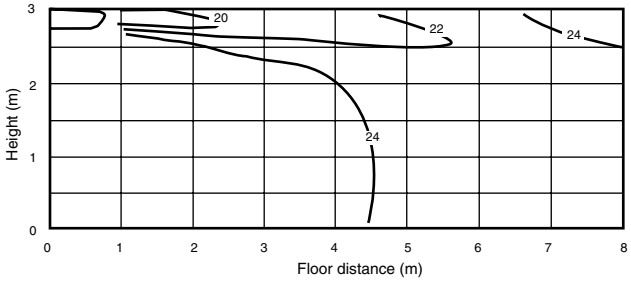
Note

1.At servicing for outdoor unit,always follow the wiring diagram of outdoor unit.
2.In case of using MA-Remote controller, please connect to TB15.
(Remote controller wire is non-polar.)
3.In case of using M-NET, please connect to TB5.(Transmission line is non-polar.)
4.Symbol[S] of TB5 is the shield wire connection.
5.Symbols used in wiring diagram above are,
◎:Terminal block, □□□ :Connector.
6. The setting of the SW2 dip switches differs in the capacity. For the detail,refer to the fig: ※1.
7. Please set the switch SW5 according to the power supply voltage.
Set SW5 to 240V side when the power supply is 230 and 240 volts.
When the power supply is 220 volts,set SW5 to 220V side.
8. Fasten terminal of the terminal board "TB5" equips lock system.
To remove the fasten terminal,pull it while pressing the protrudingn portion (locking lever)of the terminal.
Connection of the fasten terminal,protruding portion shouid face upward.

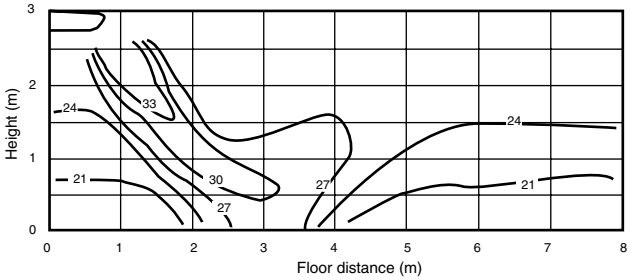
6. Temperature/Airflow distribution

● Temperature distribution

<Cooling mode>
Flow angle : 0˚



<Heating mode>
Flow angle : 60˚



● Airflow distribution

<Fan mode>
Flow angle : 0˚

<Fan mode>
Flow angle : 60˚

LOSSNAY unit LGH-RS2-E2

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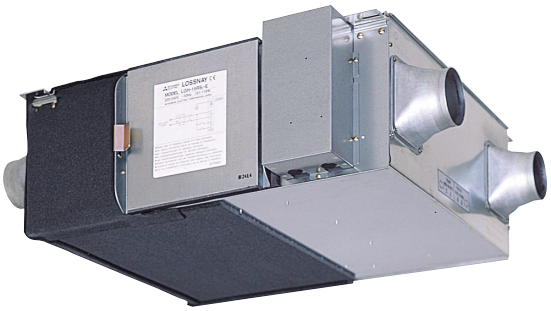
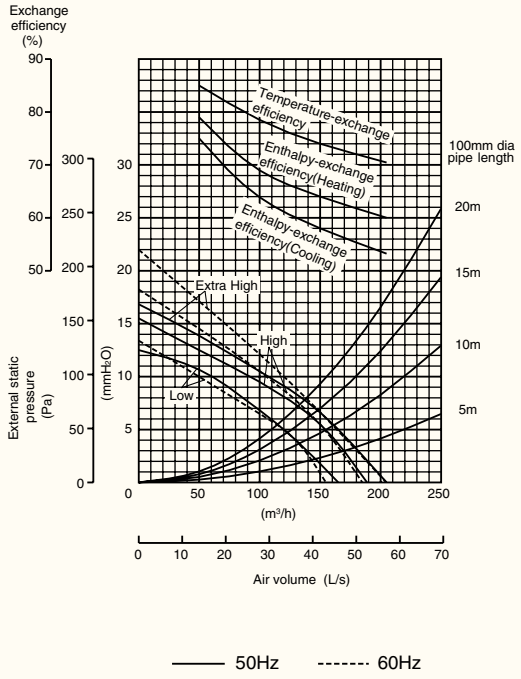
1. LGH-15RS2-E2

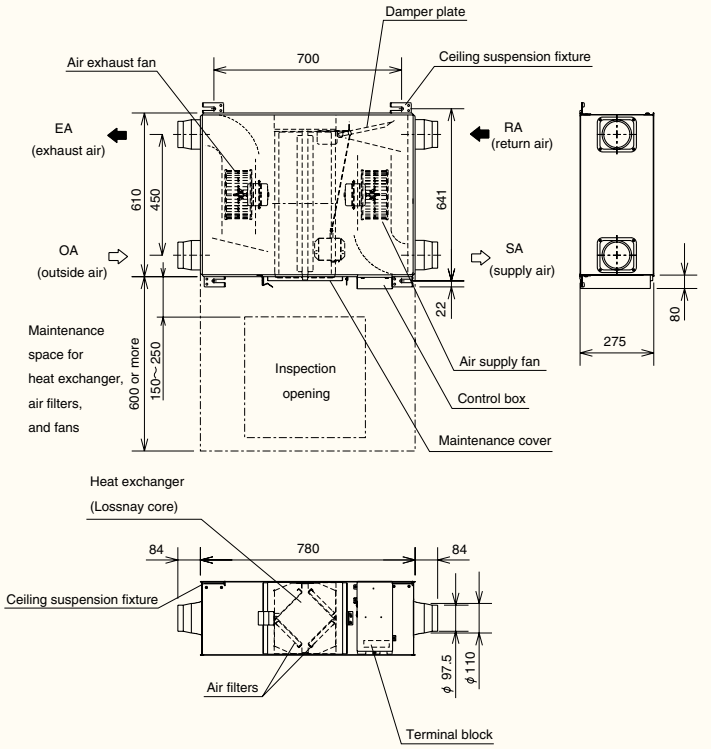


- Slim design
- Low noise design
- Straight-line air supply/exhaust system
- Extra-high notch (can be set for air supply or exhaust)
- Can be mounted upside down
- One inspection space

■Characteristic Curve



■External Dimensions

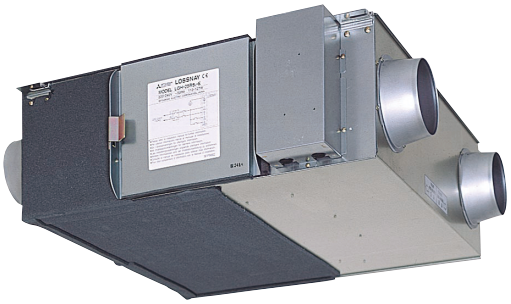


Unit:mm

■Specifications

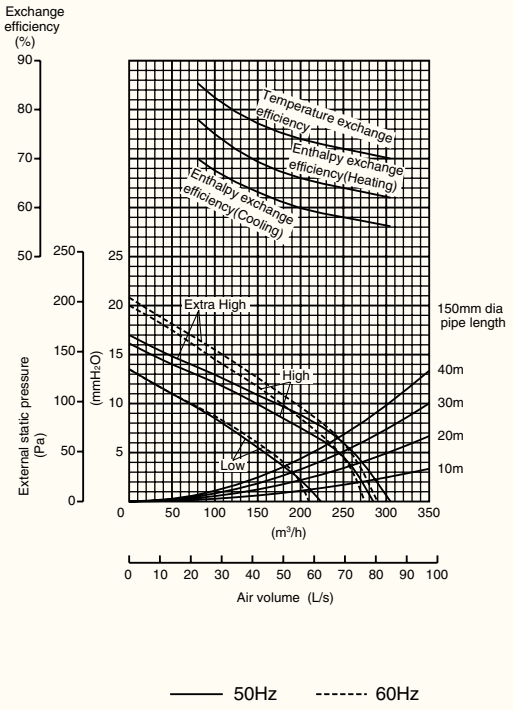
Model			LGH-15RS2-E2					
Power source			Single phase 220-240V～50Hz/220V～60Hz					
Ventilation mode			Lossnay ventilation			Bypass ventilation		
Notch			Extra high	High	Low	Extra high	High	Low
Current (A)			0.43-0.45/0.49	0.35-0.36/0.39	0.27-0.28/0.29	0.45-0.47/0.53	0.37-0.38/0.42	0.29-0.30/0.32
Input (W)			93-107/106	75-86/85	58-66/63	97-111/109	79-90/90	62-69/69
Air volume		(m^3/h)	150/150	150/150	130/130	150/150	150/150	130/130
		(L/s)	42/42	42/42	36/36	42/42	42/42	36/36
External static pressure		(mmH_2O)	6.7/6.7	5.5/5.5	4.0/4.0	6.7/6.7	5.5/5.5	4.0/4.0
		(Pa)	65.7/65.7	53.9/53.9	39.2/39.2	65.7/65.7	53.9/53.9	39.2/39.2
Temperature exchange efficiency (%)			74/74	74/74	76/76	—	—	—
Enthalpy exchange efficiency (%)		Heating	64/64	64/64	65/65	—	—	—
		Cooling	58/58	58/58	60/60	—	—	—
Noise (dB) (measured at 1.5m under the center of Lossnay)			28.5-29.5/29	26.5-27.5/27	24.5-25.5/24	29-30/29.5	27-28/27.5	25-26/24.5
Weight (kg)			19kg					
Starting current	Under 0.7A		Insulation resistance		10MΩ or more (500V megger)		Withstand voltage	1500V AC, 1 minute

2. LGH-25RS2-E2

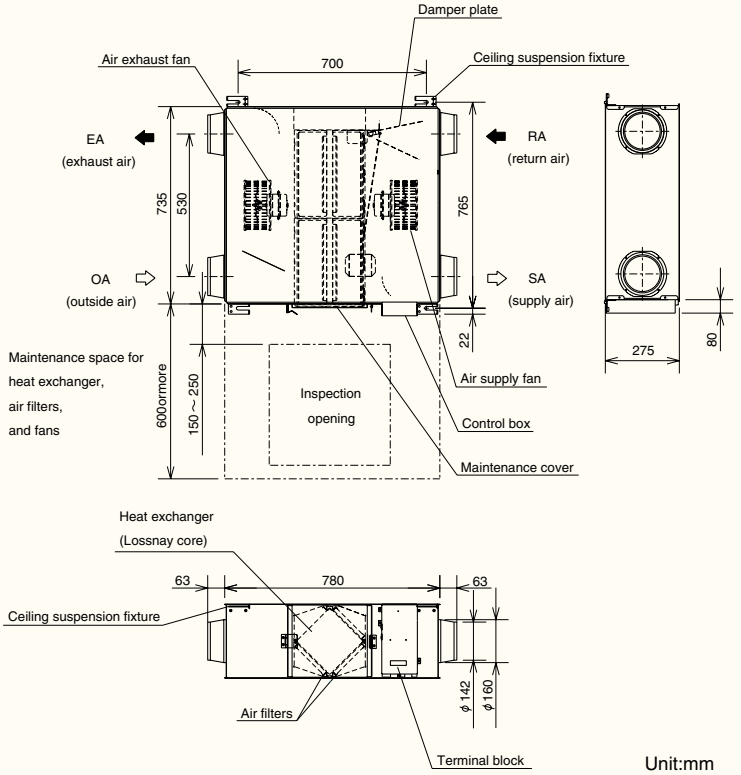


- Slim design
- Low noise design
- Straight-line air supply/exhaust system
- Extra-high notch (can be set for air supply or exhaust)
- Can be mounted upside down
- One inspection space
- ϕ100 duct piping possible (When using optional duct piping attachment)

■Characteristic Curve



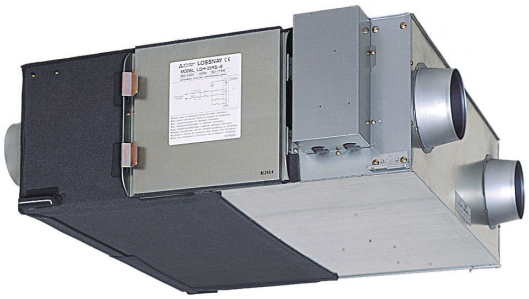
■External Dimensions



■Specifications

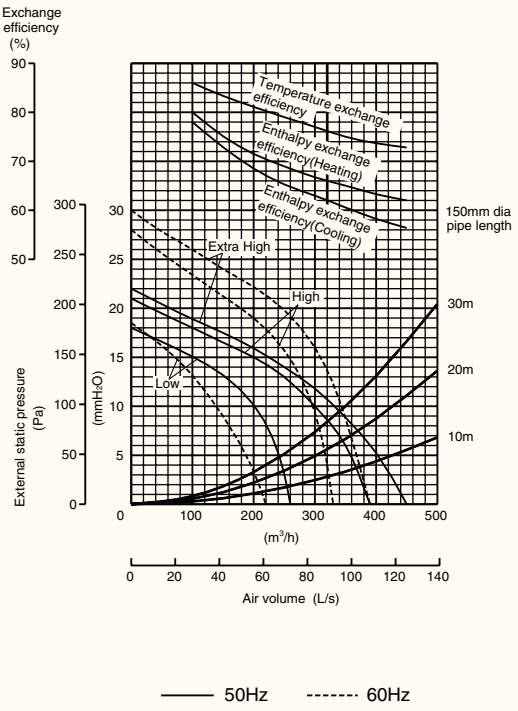
Model		LGH-25RS2-E2					
Power source		Single phase 220-240V～50Hz/220V～60Hz					
Ventilation mode		Lossnay ventilation			Bypass ventilation		
Notch		Extra high	High	Low	Extra high	High	Low
Current (A)		0.47-0.49/0.54	0.42-0.44/0.48	0.28-0.30/0.32	0.50-0.52/0.58	0.45-0.47/0.51	0.31-0.33/0.35
Input (W)		101-117/118	92-105/105	61-72/70	105-121/123	96-109/110	66-76/74
Air volume	(m³/h)	250/250	250/250	195/195	250/250	250/250	195/195
	(L/s)	69/69	69/69	54/54	69/69	69/69	54/54
External static pressure	(mmH₂O)	6.0/6.0	4.5/4.5	2.6/2.6	6.0/6.0	4.5/4.5	2.6/2.6
	(Pa)	58.8/58.8	44.1/44.1	25.5/25.5	58.8/58.8	44.1/44.1	25.5/25.5
Temperature exchange efficiency (%)		72/72	72/72	74/74	—	—	—
Enthalpy exchange efficiency (%)	Heating	64/64	64/64	66/66	—	—	—
	Cooling	58/58	58/58	60/60	—	—	—
Noise (dB) (measured at 1.5m under the center of Lossnay)		29-30/29.5	27-28/27.5	24.5-25.5/24.5	29.5-30.5/30	27.5-28.5/28	25-26/25
Weight (kg)		23kg					
Starting current	Under 0.8A	Insulation resistance		10MΩ or more (500V megger)	Withstand voltage		1500V AC, 1 minute

3. LGH-35RS2-E2

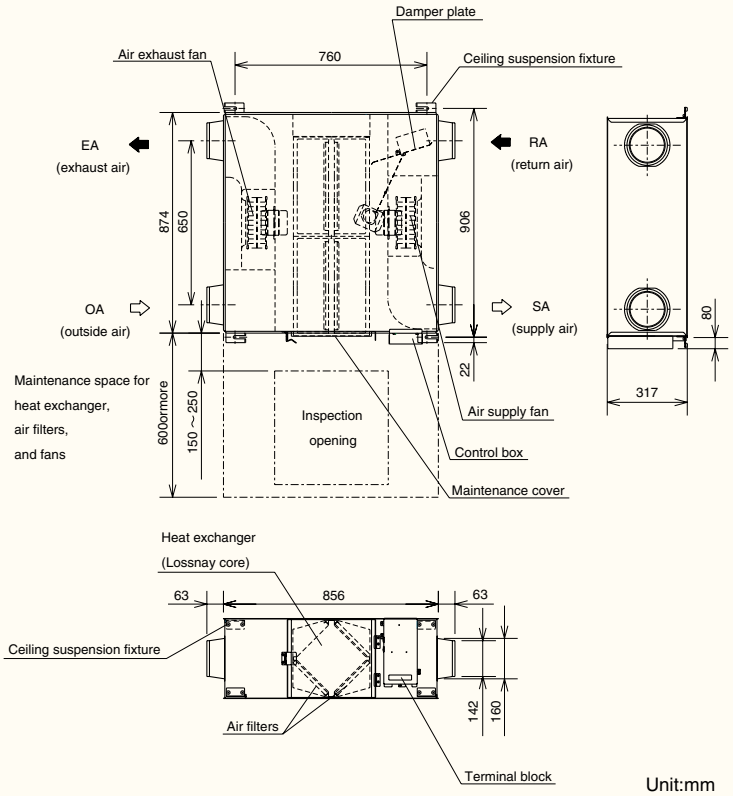


- Slim design
- Low noise design
- Straight-line air supply/exhaust system
- Extra-high notch (can be set for air supply or exhaust)
- Can be mounted upside down
- One inspection space
- ϕ100 duct piping possible (When using optional duct piping attachment)

■Characteristic Curve



■External Dimensions

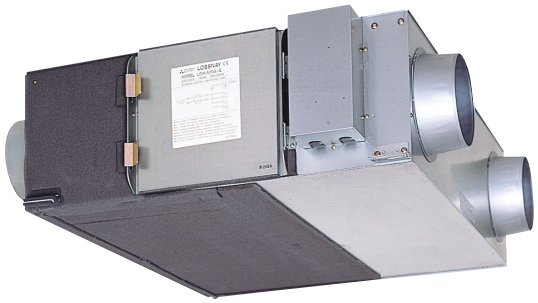


Unit:mm

■Specifications

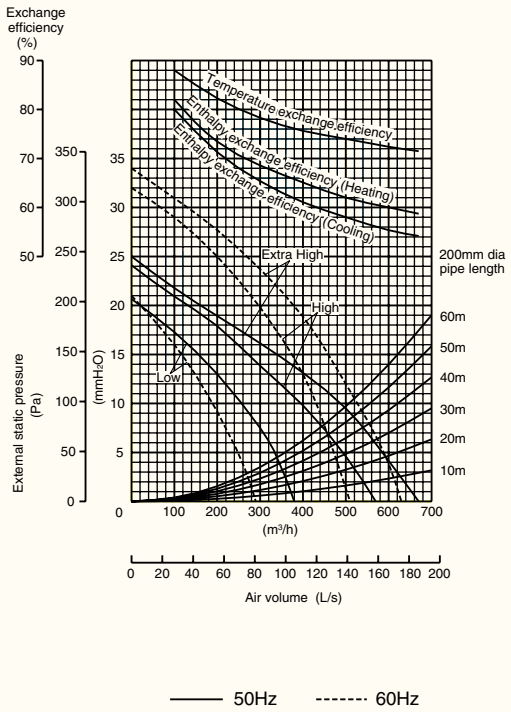
Model		LGH-35RS2-E2					
Power source		Single phase 220-240V～50Hz/220V～60Hz					
Ventilation mode		Lossnay ventilation			Bypass ventilation		
Notch		Extra high	High	Low	Extra high	High	Low
Current (A)		0.60-0.60/0.77	0.57-0.57/0.68	0.40-0.42/0.42	0.63-0.63/0.80	0.60-0.60/0.70	0.43-0.45/0.44
Input (W)		132-142/168	125-134/148	87-99/90	137-147/173	130-139/153	92-104/93
Air volume	(m^3/h)	350/350	350/320	250/210	350/350	350/320	250/210
	(L/s)	97/97	97/89	69/58	97/97	97/89	69/58
External static pressure	(mmH_2O)	8.9/8.9	6.0/4.5	3.1/1.9	8.9/8.9	6.0/4.5	3.1/1.9
	(Pa)	87.2/87.2	58.8/44.1	30.4/18.6	87.2/87.2	58.8/44.1	30.4/18.6
Temperature exchange efficiency (%)		75/75	75/76	79/81	—	—	—
Enthalpy exchange efficiency (%)	Heating	65/65	65/66	69/71	—	—	—
	Cooling	61/61	61/62	65/68	—	—	—
Noise (dB) (measured at 1.5m under the center of Lossnay)		31-33/30	29-31/27	24-26/22	32-34/30.5	30-32/27.5	24-26/22.5
Weight (kg)		33kg					
Starting current	Under 1.6A	Insulation resistance		10MΩ or more (500V megger)	Withstand voltage		1500V AC, 1 minute

4. LGH-50RS2-E2

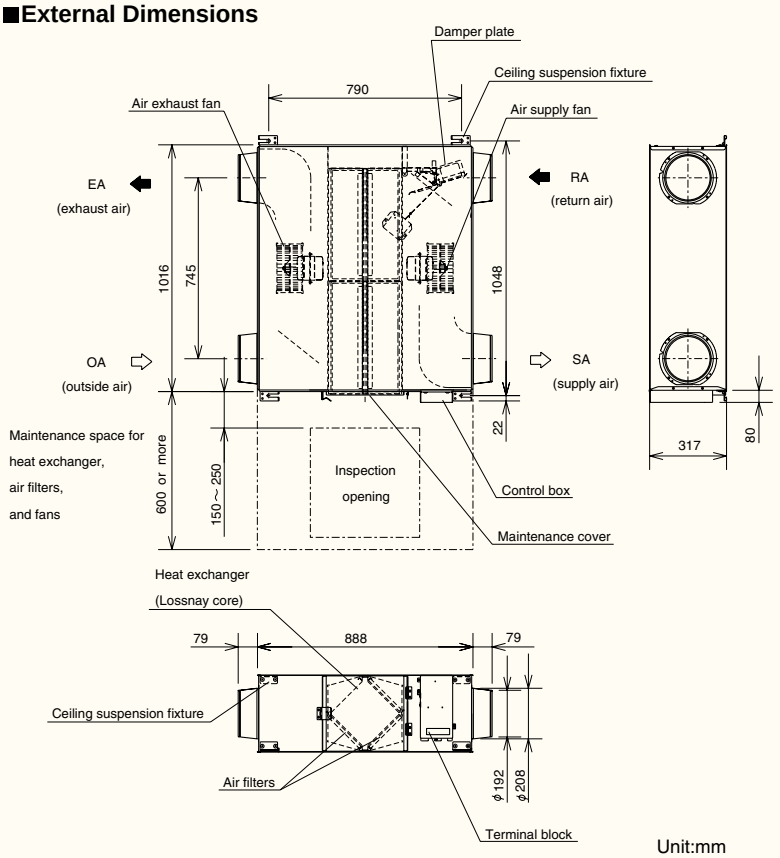


- Slim design
- Low noise design
- Straight-line air supply/exhaust system
- Extra-high notch (can be set for air supply or exhaust)
- Can be mounted upside down
- One inspection space
- ϕ150 duct piping possible (When using optional duct piping attachment)

■Characteristic Curve



■External Dimensions

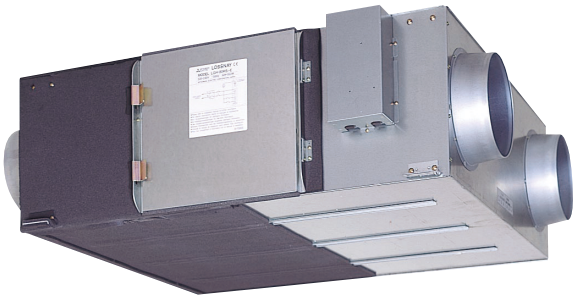


Unit:mm

■Specifications

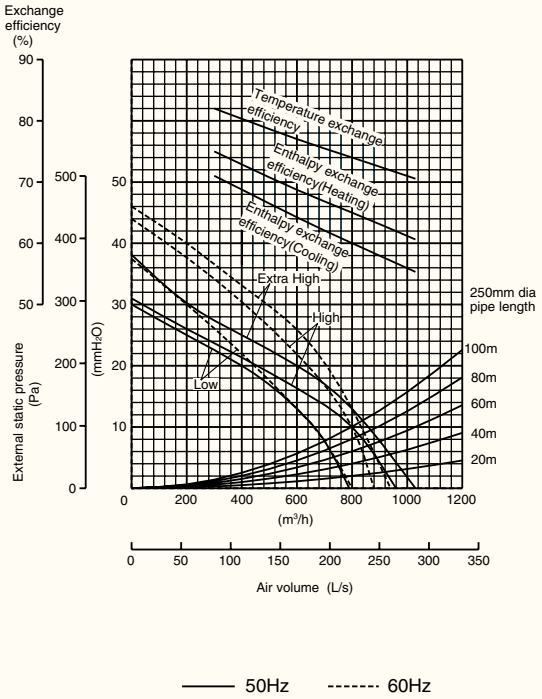
Model		LGH-50RS2-E2					
Power source		Single phase 220-240V～50Hz/220V～60Hz					
Ventilation mode		Lossnay ventilation			Bypass ventilation		
Notch		Extra high	High	Low	Extra high	High	Low
Current (A)		0.84-0.84/1.10	0.78-0.78/0.96	0.51-0.53/0.50	0.87-0.87/1.12	0.81-0.81/0.97	0.54-0.56/0.54
Input (W)		184-201/250	170-183/209	107-123/109	190-207/253	175-188/211	112-128/113
Air volume	(m^3/h)	500/500	500/480	360/280	500/500	500/480	360/280
	(L/s)	139/139	139/133	100/78	139/139	139/133	100/78
External static pressure	(mmH_2O)	9.5/12.0	4.7/4.0	2.4/1.4	9.5/12.0	4.7/4.0	2.4/1.4
	(Pa)	93.1/117.6	46.1/39.2	23.5/13.7	93.1/117.6	46.1/39.2	23.5/13.7
Temperature exchange efficiency (%)		74/74	74/74	76/79	—	—	—
Enthalpy exchange efficiency (%)	Heating	62/62	62/62	66/69	—	—	—
	Cooling	58/58	58/58	62/66	—	—	—
Noise (dB) (measured at 1.5m under the center of Lossnay)		34-35/36	32-33/32	25.5-26.5/24	35-36/37	33-34/33	26.5-27.5/25
Weight (kg)		38kg					
Starting current	Under 2.2A/1.9A	Insulation resistance		10MΩ or more (500V megger)	Withstand voltage		1500V AC, 1 minute

5. LGH-80RS2-E2

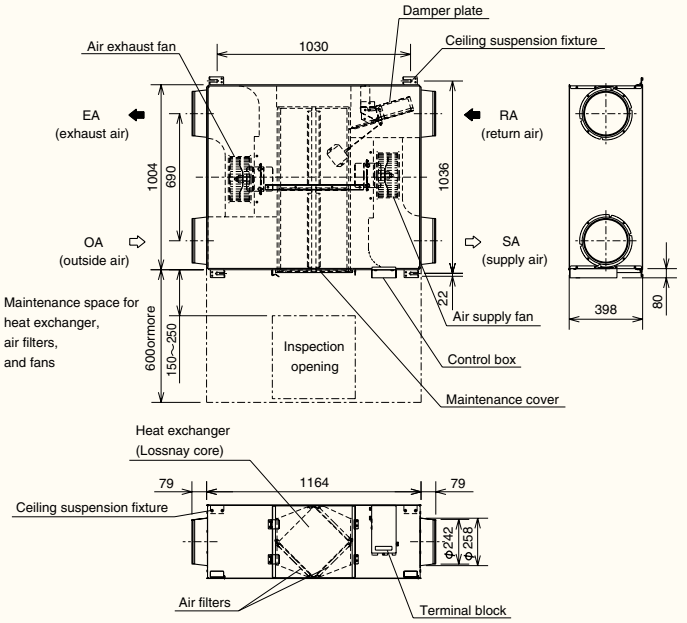


- Slim design
- Low noise design
- Straight-line air supply/exhaust system
- Extra-high notch (can be set for air supply or exhaust)
- Can be mounted upside down
- One inspection space
- ϕ200 duct piping possible (When using optional duct piping attachment)

■Characteristic Curve



■External Dimensions

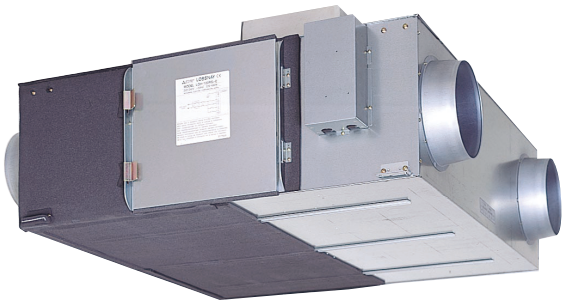


Unit:mm

■Specifications

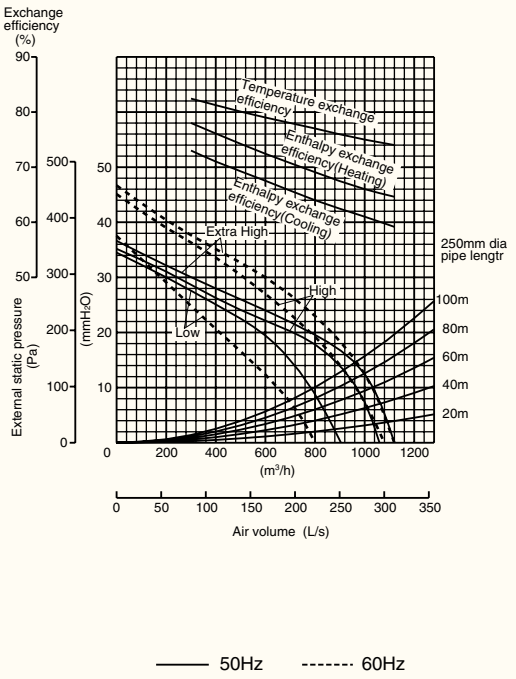
Model		LGH-80RS2-E2					
Power source		Single phase 220-240V～50Hz/220V～60Hz					
Ventilation mode		Lossnay ventilation			Bypass ventilation		
Notch		Extra high	High	Low	Extra high	High	Low
Current (A)		2.0-2.0/2.5	1.9-1.9/2.3	1.6-1.6/1.8	2.1-2.1/2.6	2.0-2.0/2.4	1.7-1.7/1.8
Input (W)		440-460/550	415-445/505	345-375/385	453-473/560	438-458/510	358-388/390
Air volume	(m^3/h)	800/800	800/800	700/700	800/800	800/800	700/700
	(L/s)	222/222	222/222	194/194	222/222	222/222	194/194
External static pressure	(mmH_2O)	13.2/13.2	10/10	7.7/7.7	13.2/13.2	10/10	7.7/7.7
	(Pa)	129.4/129.4	98/98	75.5/75.5	129.4/129.4	98/98	75.5/75.5
Temperature exchange efficiency (%)		74/74	74/74	75/75	—	—	—
Enthalpy exchange efficiency (%)	Heating	65/65	65/65	67/67	—	—	—
	Cooling	60/60	60/60	62/62	—	—	—
Noise (dB) (measured at 1.5m under the center of Lossnay)		36.5-37.5/37	35-36/35.5	32.5-33.5/31	37-38/37.5	35.5-36.5/36	33-34/31.5
Weight (kg)		73kg					
Starting current	Under 4.8A/4.1A	Insulation resistance		10MΩ or more (500V megger)	Withstand voltage		1500V AC, 1 minute

6. LGH-100RS2-E2

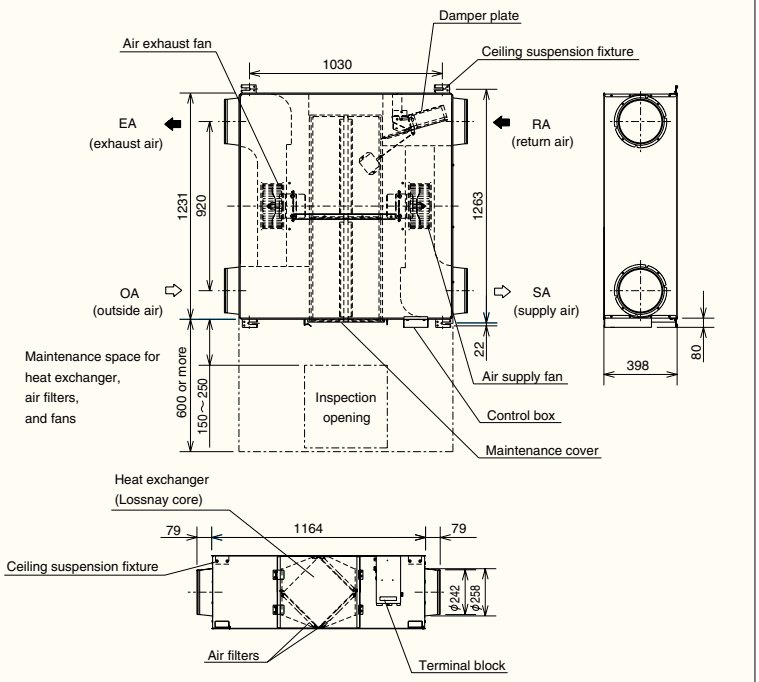


- Slim design
- Low noise design
- Straight-line air supply/exhaust system
- Extra-high notch (can be set for air supply or exhaust)
- Can be mounted upside down
- One inspection space
- ϕ200 duct piping possible (When using optional duct piping attachment)

■Characteristic Curve



■External Dimensions

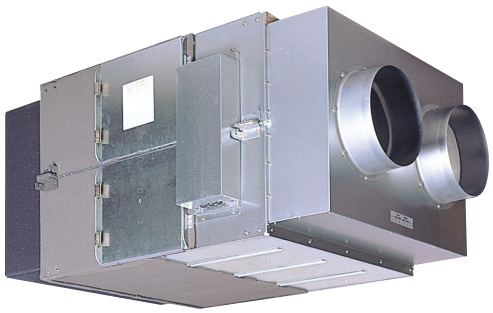


Unit:mm

■ Specifications

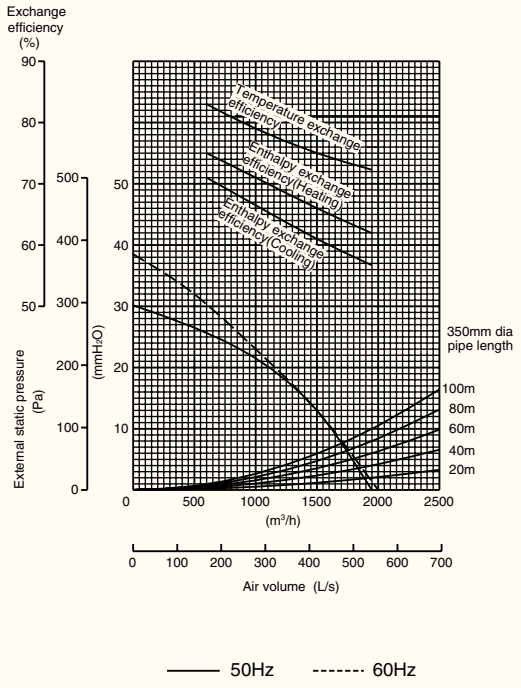
Model		LGH-100RS2-E2					
Power source		Single phase 220-240V～50Hz/220V～60Hz					
Ventilation mode		Lossnay ventilation			Bypass ventilation		
Notch		Extra high	High	Low	Extra high	High	Low
Current (A)		2.3-2.3/2.8	2.2-2.2/2.6	1.9-1.9/1.7	2.2-2.2/2.8	2.1-2.1/2.6	1.8-1.8/1.7
Input (W)		500-535/605	475-525/555	405-445/355	498-508/600	463-503/560	398-448/360
Air volume	(m³/h)	1,000/1,000	1,000/1,000	845/750	1,000/1,000	1,000/1,000	845/750
	(L/s)	278/278	278/278	235/208	278/278	278/278	235/208
External static pressure	(mmH₂O)	12.5/12.5	7.4/7.4	5.3/4.2	12.5/12.5	7.4/7.4	5.3/4.2
	(Pa)	122.5/122.5	72.5/72.5	51.9/41.2	122.5/122.5	72.5/72.5	51.9/41.2
Temperature exchange efficiency (%)		75/75	75/75	76.5/78	—	—	—
Enthalpy exchange efficiency (%)	Heating	66/66	66/66	68/70	—	—	—
	Cooling	61/61	61/61	63/65	—	—	—
Noise (dB) (measured at 1.5m under the center of Lossnay)		37-38/38	35.5-36.5/37	33-34/31	37.5-38.5/39	36-37/38	33.5-34.5/32
Weight (kg)		83kg					
Starting current	Under 4.5A/4.7A	Insulation resistance		10MΩ or more (500V megger)	Withstand voltage		1500V AC, 1 minute

7. LGH-150RS2-E2

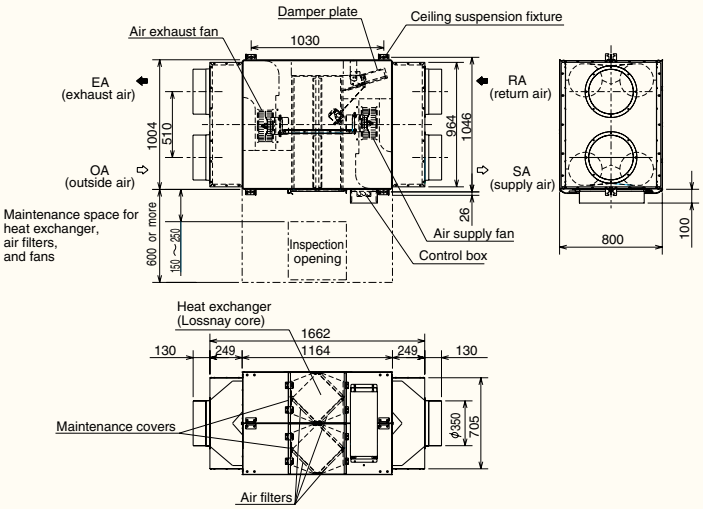


- ●Slim design ●Low noise design
- ●Straight-line air supply/exhaust system
- ●Can be mounted upside down
- ●One inspection space ●Bypass operation included
- ●Switch possible between two ϕ250 ducts for indoor air supply and exhaust (total of 4 ducts). This is when using two optional flange sets PZ-25FR.

■Characteristic Curve



■External Dimensions

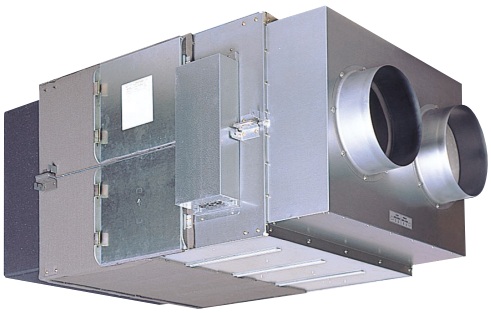


Unit:mm

■Specifications

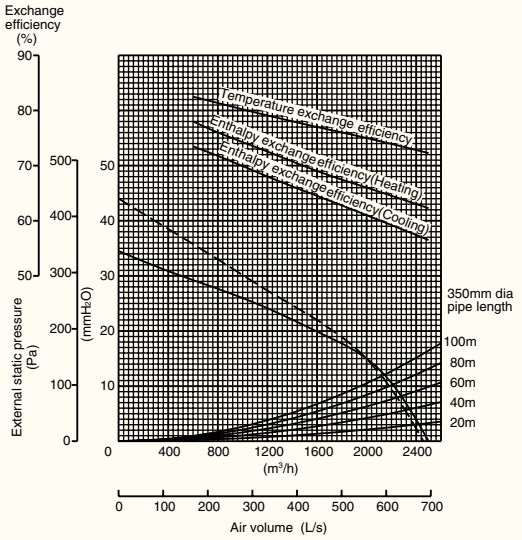
Model		LGH-150RS2-E2			
Power source		Three phase 380-415V～50Hz/380V～60Hz			
Ventilation mode		Lossnay ventilation		Bypass ventilation	
Current (A)		1.6-1.6/1.9		1.65-1.65/1.9	
Input (W)		840-885/1,120		870-925/1,126	
Air volume	(m^3/h)	1,500/1,500		1,500/1,500	
	(L/s)	417/417		417/417	
External static pressure	(mmH_2O)	13/13		13/13	
	(Pa)	127.4/127.4		127.4/127.4	
Temperature exchange efficiency (%)		75/75		—	
Enthalpy exchange efficiency (%)	Heating	66/66		—	
	Cooling	61/61		—	
Noise (dB) (measured at 1.5m under the center of Lossnay)		38-39/40		39.5-40.5/41.5	
Weight (kg)		175kg			
Starting current	Under 7.1A/6.7A	Insulation resistance	10MΩ or more (500V megger)	Withstand voltage	1500V AC, 1 minute

8. LGH-200RS2-E2

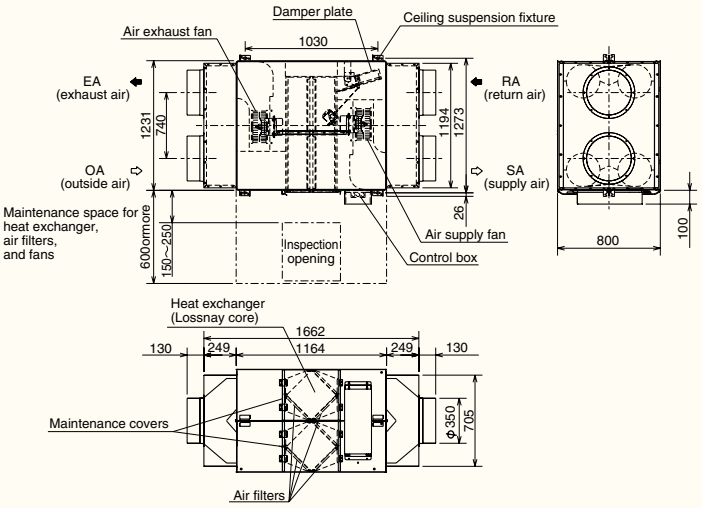


- ●Slim design ●Low noise design
- ●Straight-line air supply/exhaust system
- ●Can be mounted upside down ●One inspection space
- ●Bypass operation included
- ●Switch possible between two ϕ250 ducts for indoor air supply and exhaust (total of 4 ducts). This is when using two optional flange sets PZ-25FR.

■Characteristic Curve



■External Dimensions



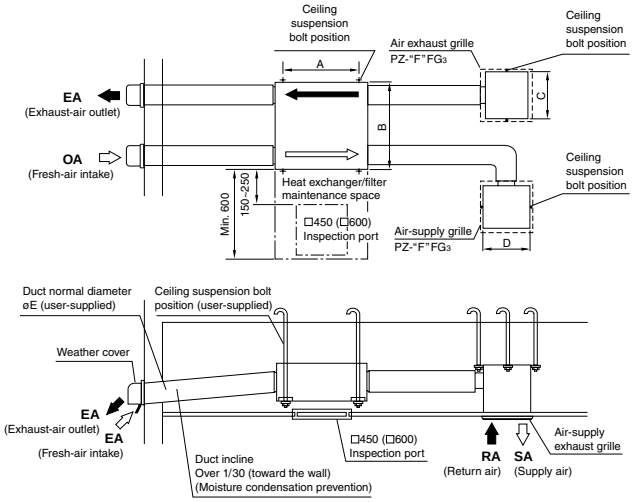
Unit:mm

■Specifications

Model		LGH-200RS2-E2			
Power source		Three phase 380-415V～50Hz/380V～60Hz			
Ventilation mode		Lossnay ventilation		Bypass ventilation	
Current (A)		1.9-1.9/2.7		1.8-1.8/2.9	
Input (W)		1,020-1,050/1,640		960-990/1,515	
Air volume	(m^3/h)	2,000/2,000		2,000/2,000	
	(L/s)	556/556		556/556	
External static pressure	(mmH_2O)	15/15		15/15	
	(Pa)	147/147		147/147	
Temperature exchange efficiency (%)		75/75		—	
Enthalpy exchange efficiency (%)	Heating	66/66		—	
	Cooling	61/61		—	
Noise (dB) (measured at 1.5m under the center of Lossnay)		39.5-40.5/42		40.5-41.5/43	
Weight (kg)		194kg			
Starting current	Under 10A/8.9A	Insulation resistance	10MΩ or more (500V megger)	Withstand voltage	1500V AC, 1 minute

9.Installation Diagram

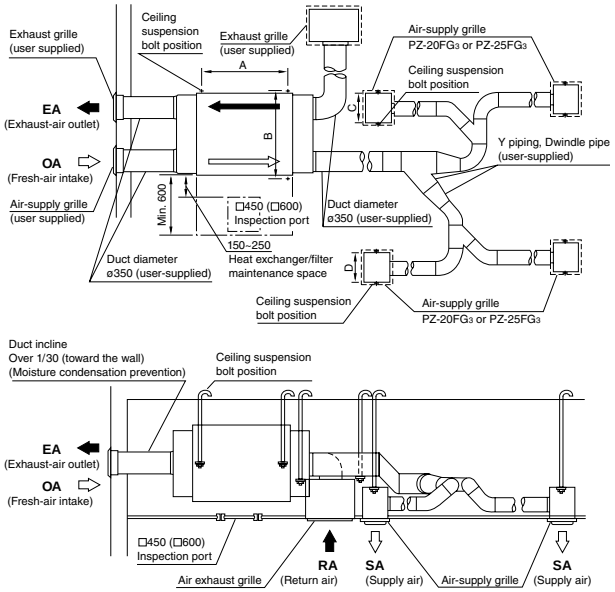
LGH-15RS2-E2~100RS2-E2



- An inspection port (□450 or □600) must be installed on the filter and Lossnay core removing side.
- Provide heat insulation to prevent moisture condensation along the two outside ducts (fresh-air intake and exhaust-air outlet).
- Ceiling installation hardware can be attached to the top of the unit.
- Do not use vent caps or round hoods in places directly exposed to rain.
- Humidifier and high-performance filter units can be installed in the middle of the air-supply duct.

	A	B	C	D	E	F
LGH-15RS2-E2	700	641	334	334	100	10
LGH-25RS2-E2	700	765	334	334	150	15
LGH-35RS2-E2	760	906	334	334	150	15
LGH-50RS2-E2	790	1,048	414	414	200	20
LGH-80RS2-E2	1,030	1,036	414	414	250	25
LGH-100RS2-E2	1,030	1,263	414	414	250	25

LGH-150RS2-E2, 200RS2-E2



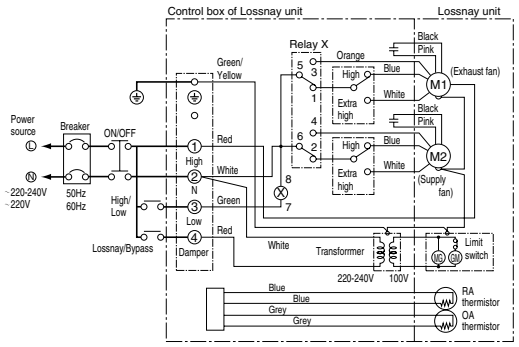
- An inspection port (□450 or □600) must be installed on the filter and Lossnay core removing side.
- Provide heat insulation to prevent moisture condensation along the two outside ducts (fresh-air intake and exhaust-air outlet).
- Where rain falls directly on the machinery, use the weather cover to prevent entry of rainwater.

	A	B	C	D
LGH-150RS2-E2	1,030	1,046	414	414
LGH-200RS2-E2	1,030	1,273	414	414

10. Wiring Diagram

LGH-15RS2-E2 ~ 100RS2-E2

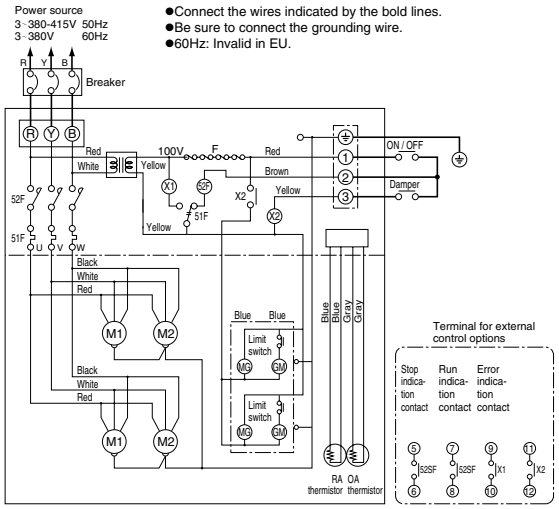
- Connect the wires indicated by the bold lines.
- Be sure to connect the grounding wire.
- 60Hz: Invalid in EU.



Breakers and control switches should be provided by the customer.
- Connect the thermistor when a Lossnay adaptor is used. For details, please refer to the instllation instruction manual of the Lossnay adaptor.

LGH-150RS2-E2, 200RS2-E2

- Connect the wires indicated by the bold lines.
- Be sure to connect the grounding wire.
- 60Hz: Invalid in EU.

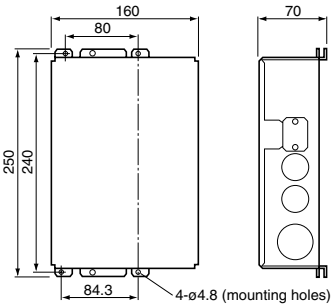


52F: Contactor 51F: Overcurrent relay M1, M2: Fan motor MG: Magnet GM: Damper motor
X: Auxiliary relay Y: Transformer F: Themal fuse for fan

11. Optional Parts

Lossnay Adaptor (PZ-53ADF-E)

External Dimensional Diagrams



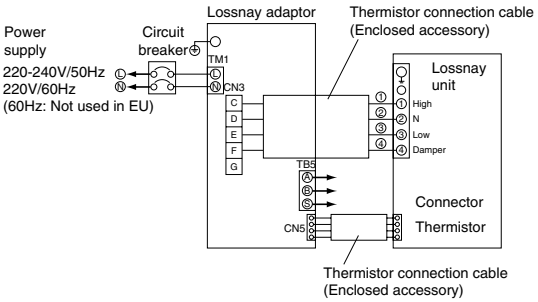
Unit: mm

Specifications

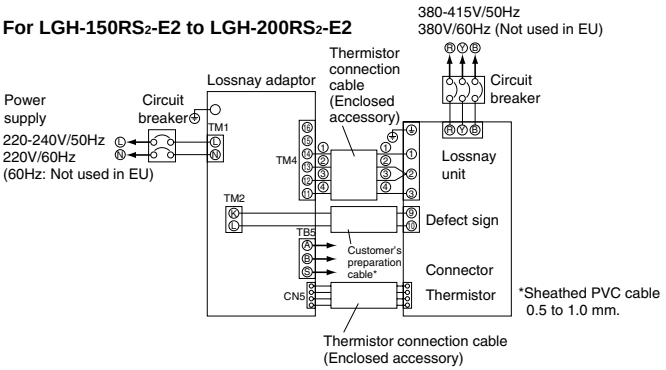
Power supply	Single phase 220V-240V / 50Hz 220V / 60Hz (Not used in EU)
Electricity consumption	3 W
Operating conditions	Temperature: 0 - 40°C / Humidity: 80%RH or less (no condensation)
Weight	1.1 kg
Fan control capacity	5 A or less

Connection Diagrams

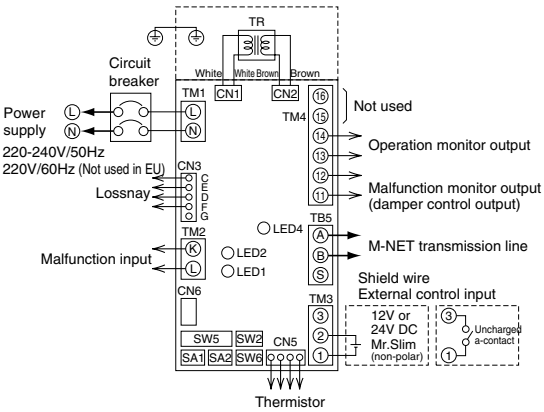
For LGH-15RS₂-E2 to LGH-100RS₂-E2



For LGH-150RS₂-E2 to LGH-200RS₂-E2



Wiring Diagrams

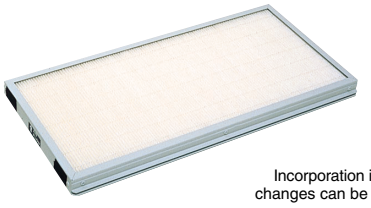


Meaning of symbols

Symbol	Name
SW2	Function selector dip switch
SW5	Function selector dip switch
SW6	Function selector dip switch
SA1	Address setting rotary switch (10 digit)
SA2	Address setting rotary switch (1 digit)
CN1	Connector (transformer, primary side)
CN2	Connector (transformer, secondary side)
CN3	Connector (for connection with Lossnay)
CN5	Connector (for connection with thermistor)
TR	Control circuit transformer
TM1	Terminal block (power supply input)
TM2	Terminal block (malfunction input)
TM3	Terminal block (external control input)
TM4	Terminal block (monitor output, malfunction monitor output, damper control output)
TB5	Terminal block (transmission line connection: 2 non-polar lines)
LED1	Inspection display lamp (green)
LED2	Inspection display lamp (red)
LED4	Inspection display lamp (red)

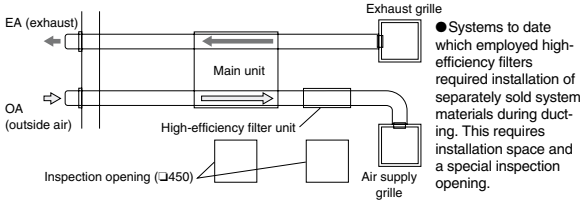
High-efficiency Filter

This high-efficiency filter (with 65% colorimetricity) can be incorporated inside the Lossnay unit without the need to attach parts from other systems, as done to date. The main unit external dimensions are unchanged, and processing capacity ranges between 150m³/h and 2,000m³/h.



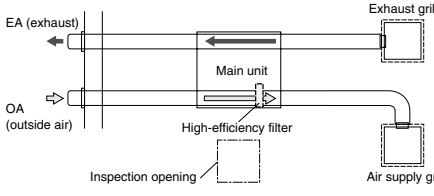
Incorporation into the main unit is simple, and filter changes can be performed via the main unit inspection opening.

System design and operation incorporating the high-efficiency filter is simple



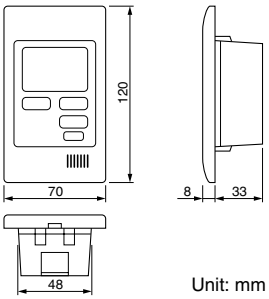
●Systems to date which employed high-efficiency filters required installation of separately sold system materials during ducting. This requires installation space and a special inspection opening.

New system



●Simply incorporating the separately sold high-efficiency filter inside the main unit negates the need for filter unit installation space and special inspection opening.

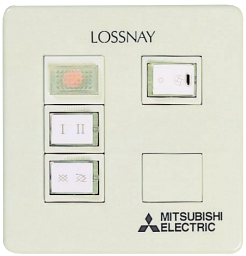
Control Switch (PZ-52SF-E)

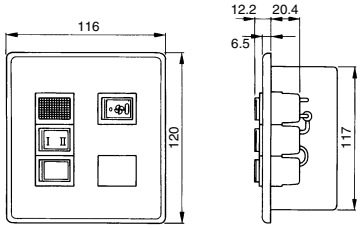


Unit: mm

Source power requirement	Input voltage	17VDC - 30VDC, 0.02A Power received from an outdoor unit or a power supply unit via M-NET transmission line.
Interface condition for transmission line	M-NET transmission line: 30VDC+AMI signal (±5VDC)	
Number of M-NET controlled Lossnay unit controlled by PZ-52SF-E	1 - 16	
Environmental condition	Temperature	Operating 0 - 40°C Non operating 0 - 70°C
	Humidity	30 - 90%RH (No condensation)
Dimensions	120 (High) × 70 (Width) × 8 (Depth) mm	
Weight	0.12 kg	

Control Switch (PZ-05SLB2-CE)





Unit: mm

Optional Parts List

Parts / Model	Switch	Interlocking system		Air supply exhaust grille (sound muffler type)	Sound muffler box	Branching duct	Duct conversion attachment	Vent cap	Weather cover	Round hood	Flange set (duct connection for Ø250	Spare filter	High efficiency filter
		Adaptor	Switch										
LGH-15RS2-E2	PZ-05SLB2-CE	PZ-53ADF-E	PZ-52SF-E	PZ-10FG3	—	—	—	PZ-10BCA4	PZ-10CV	PZ-10FA3	—	PZ-15RF5	PZ-15RFM
LGH-25RS2-E2				PZ-15FG3	—	PZ-15Y	PZ-15A	PZ-15BCA4	PZ-15CV	PZ-15FA3		PZ-25RF5	PZ-25RFM
LGH-35RS2-E2												PZ-35RF5	PZ-35RFM
LGH-50RS2-E2				PZ-20FG3	PZ-20SB2	PZ-20Y	PZ-20A2	PZ-20BCA4	PZ-20CV	PZ-20FA3		PZ-50RF5	PZ-50RFM
LGH-80RS2-E2				PZ-25FG3	PZ-25SB2	PZ-25Y	PZ-25A	PZ-25BCD	PZ-25VS	PZ-25FS4		PZ-80RF5	PZ-80RFM
LGH-100RS2-E2												PZ-100RF5	PZ-100RFM
LGH-150RS2-E2	Custmor preparation				—	—	—	—	—	—	PZ-25FR	PZ-80RF5*	PZ-80RFM*
LGH-200RS2-E2												PZ-100RF5*	PZ-100RFM*

*2 sets are necessary.

BC controller CMB-P-V-E

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3. External Dimension 385
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4. Refrigerant circuit 393

1. Specifications

Model name			CMB-P104V-E	CMB-P105V-E	CMB-P106V-E	CMB-P108V-E	CMB-P1010V-E	CMB-P1013V-E	CMB-P1016V-E
Number of branch			4	5	6	8	10	13	16
Power source			~ 220/230/240V 50Hz						
Power input		kW	0.068	0.083	0.098	0.128	0.158	0.203	0.248
Current		A	0.31/0.30/0.29	0.38/0.36/0.35	0.45/0.43/0.41	0.58/0.56/0.54	0.72/0.69/0.66	0.93/0.89/0.85	1.13/1.08/1.04
External finish			Galvanized steel plate (Lower part drain pan painting N1.5)						
Indoor unit capacity connectable to 1 branch			Model 80 or smaller •Use optional joint pipe combining 2-branch when the total unit capacity exceeds 81. •Use the reducer (standard accessory) when the indoor unit Model 40 or smaller is connected.						
Height		mm	290						
Width		mm	360						
Depth		mm	676					1126	
Refrigerant piping diameter	To outdoor unit	High pressure pipe	ø19.05 Flare						
		Low pressure pipe	ø25.4 Flange ø28.58 Brazed						
	To indoor unit	Liquid pipe	ø9.52 Flare (ø6.35 with attached reducer used, ø12.7 with optional joint pipe used)						
		Gas pipe	ø15.88 Flare (ø12.7 with attached reducer used, ø19.05 with optional joint pipe used)						
Drain pipe			VP-20						
Net weight		kg	29	32	34	39	44	54	61
Accessories			•Flange (with insulation) •Drain connection pipe (with flexible hose and insulation) •Reducer						

Note: 1.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

2. External Dimension

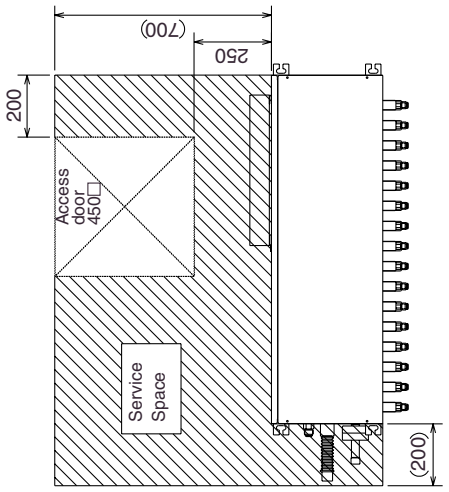
CMB-P104,105,106,108,1010, 1013,1016V-E

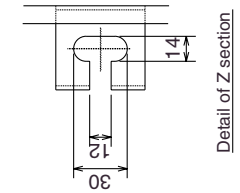
Unit : mm

Model	A	B	C	D
CMB-P104V-E	676	702	3	195
CMB-P105V-E	676	702	4	260
CMB-P106V-E	676	702	5	325
CMB-P108V-E	676	702	7	455
CMB-P1010V-E	676	702	9	585
CMB-P1013V-E	1126	1152	12	780
CMB-P1016V-E	1126	1152	15	975

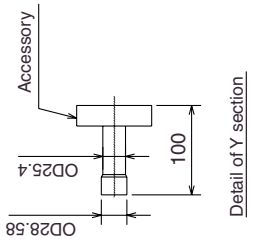
<Accessories>
•Refrigerant<Low pressure> conn. pipe .... 1pc.
•Packing for conn. pipe ..... 1pc.
•Cover for conn. pipe ..... 1pc.
•Reducer(Large,Small) ..... Quantity for all connections
•Drain hose(VP-25 connection) ..... 1pc.
•Pipe cover for drain hose ..... 1pc.
•Hose band ..... 1pc.
•Tie band ..... 4pcs.

Note1.Suspension bolt(ø10),washer(M10),and nut(M10) prepare in the field.
2.Take notice of service space as follows. (Please give attention not to occupy service space by letting ducts and pipes through.)

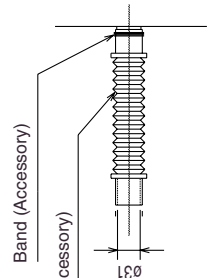




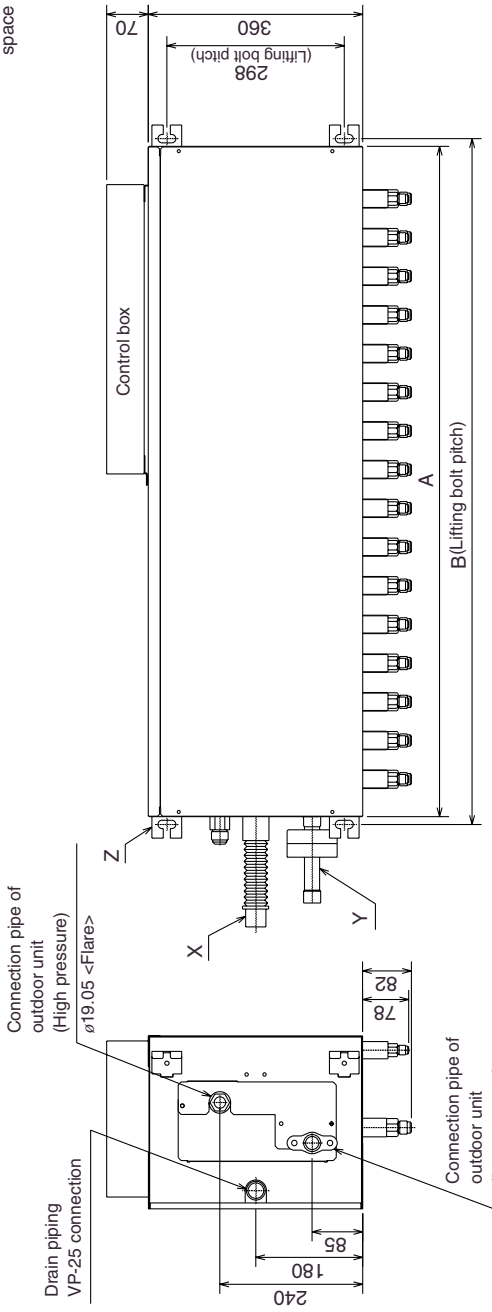
Detail of Z section



Detail of Y section

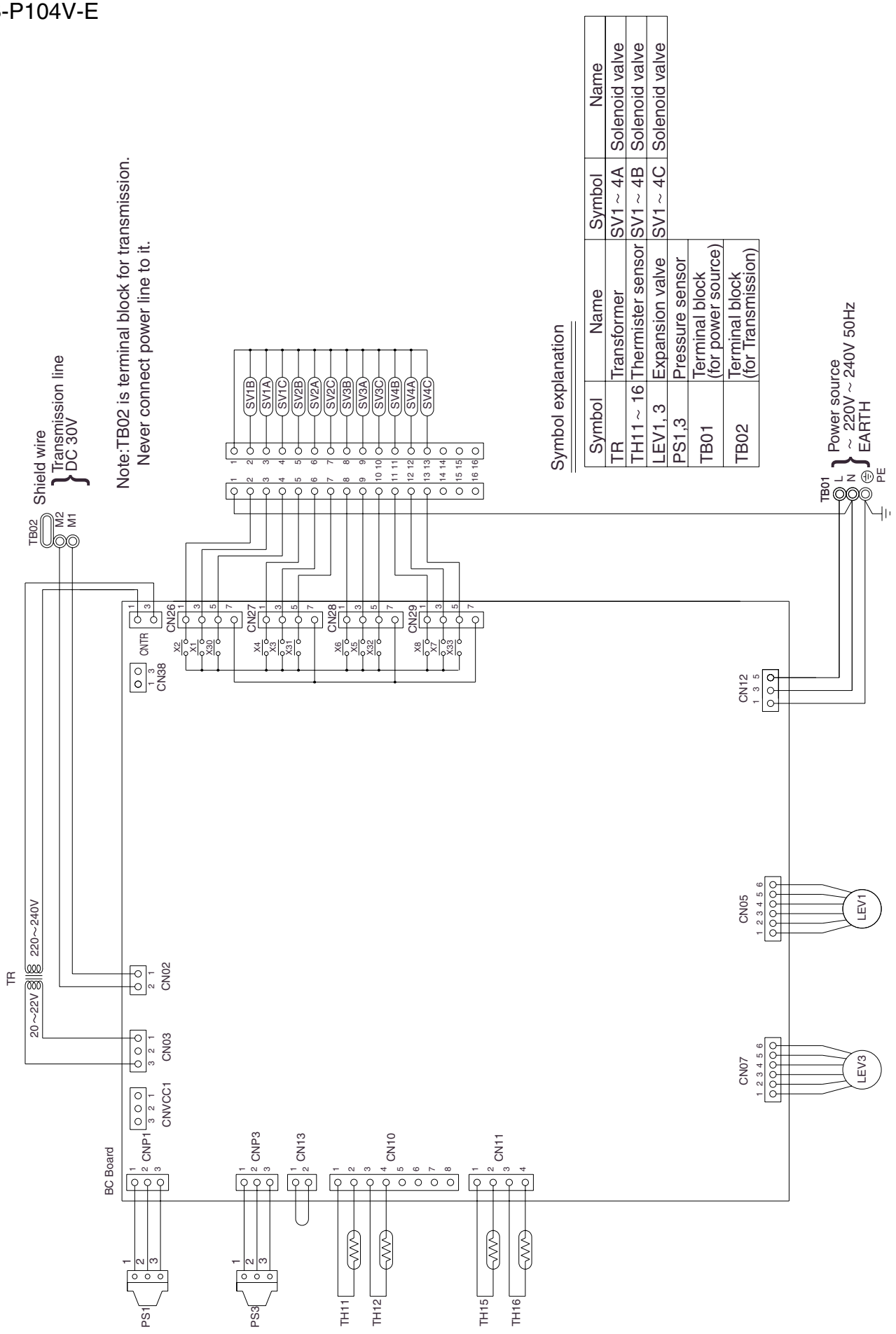


Detail of X section

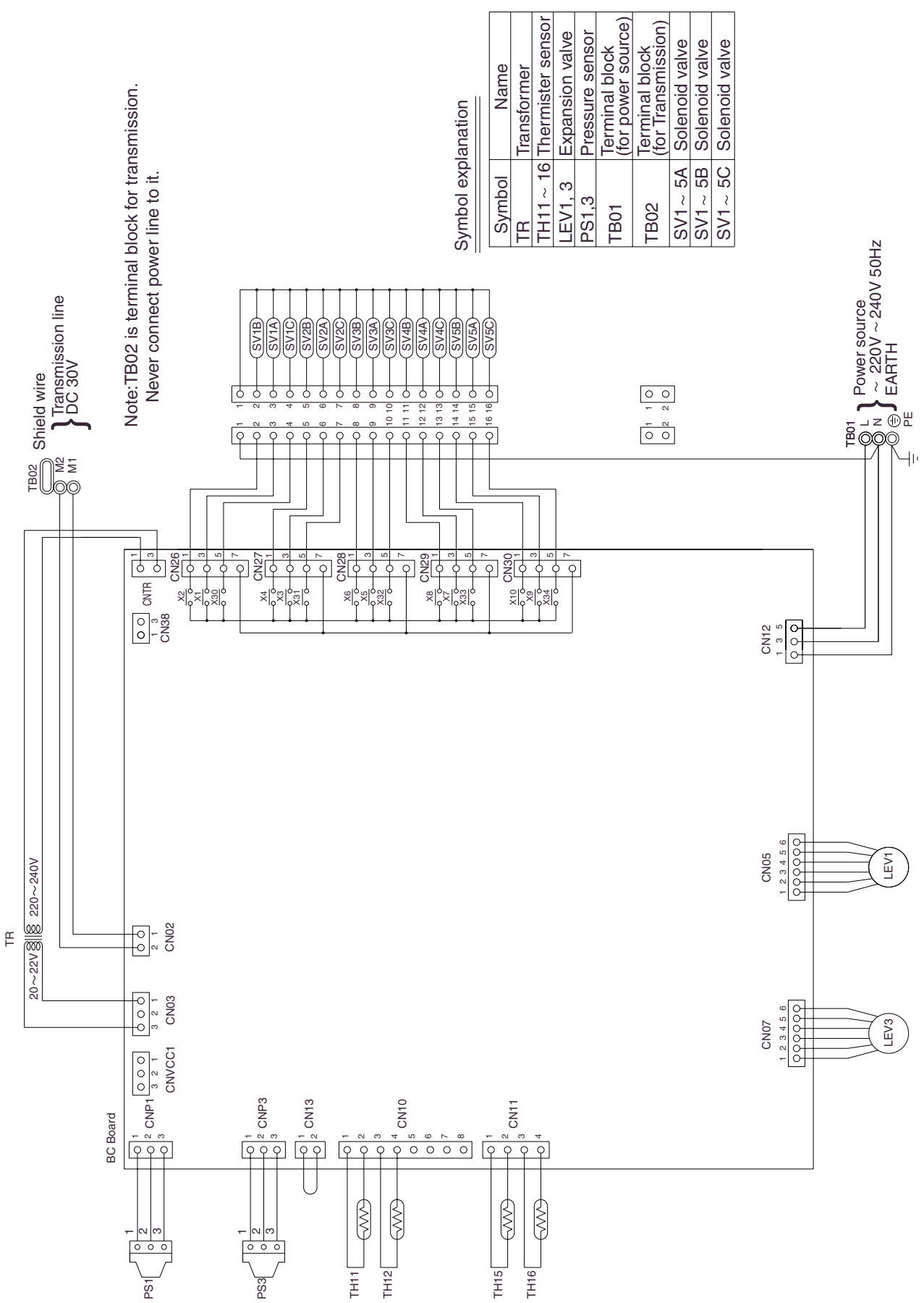


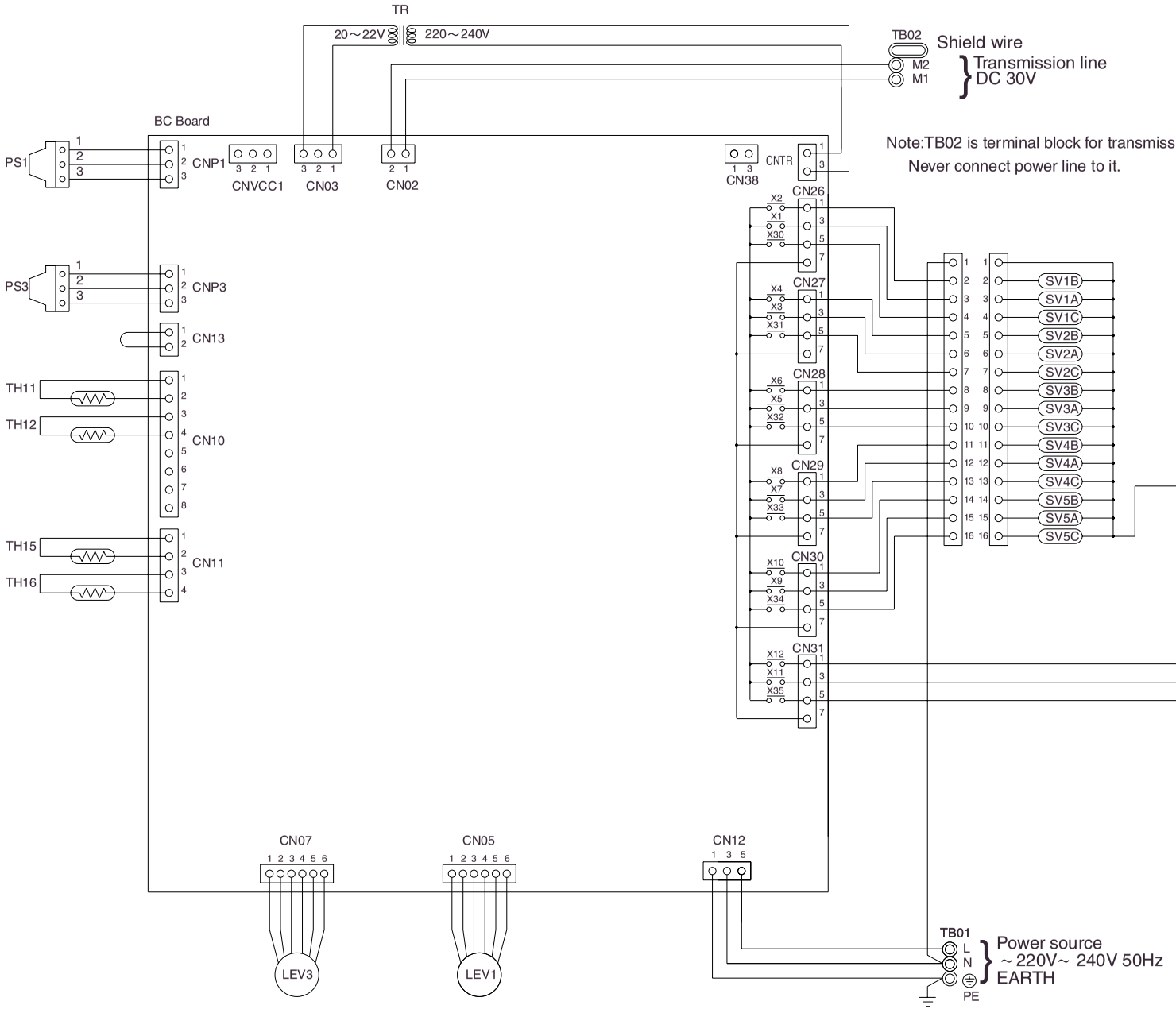
3. Wiring Diagrams

CMB-P104V-E



CMB-P105V-E


Symbol explanation
Symbol | Name
TR | Transformer
TH11 ~ 16 | Thermister sensor
LEV1, 3 | Expansion valve
PS1,3 | Pressure sensor
TB01 | Terminal block (for power source)
TB02 | Terminal block (for Transmission)
SV1 ~ 5A | Solenoid valve
SV1 ~ 5B | Solenoid valve
SV1 ~ 5C | Solenoid valve
Note:TB02 is terminal block for transmission.
Never connect power line to it.
Shield wire
Transmission line
DC 30V
TB02
M2
M1
Power source
~ 220V ~ 240V 50Hz
EARTH
TB01
L
N
PE
SV1B
SV1A
SV1C
SV2B
SV2A
SV2C
SV3B
SV3A
SV3C
SV4B
SV4A
SV4C
SV5B
SV5A
SV5C
CN26
CN27
CN28
CN29
CN30
CNTR
CN38
CN12
CN05
CN07
LEV1
LEV3
TR
220~240V
20~22V
CN02
CN03
CNVCC1
BC Board
CNP1
CNP3
CN13
CN10
CN11
PS1
PS3
TH11
TH12
TH15
TH16



Note:TB02 is terminal block for transmission.
Never connect power line to it.

Symbol explanation

Symbol	Name
TR	Transformer
TH11～16	Thermister sensor
LEV1,3	Expansion valve
PS1,3	Pressure sensor
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1～6A	Solenoid valve
SV1～6B	Solenoid valve
SV1～6C	Solenoid valve

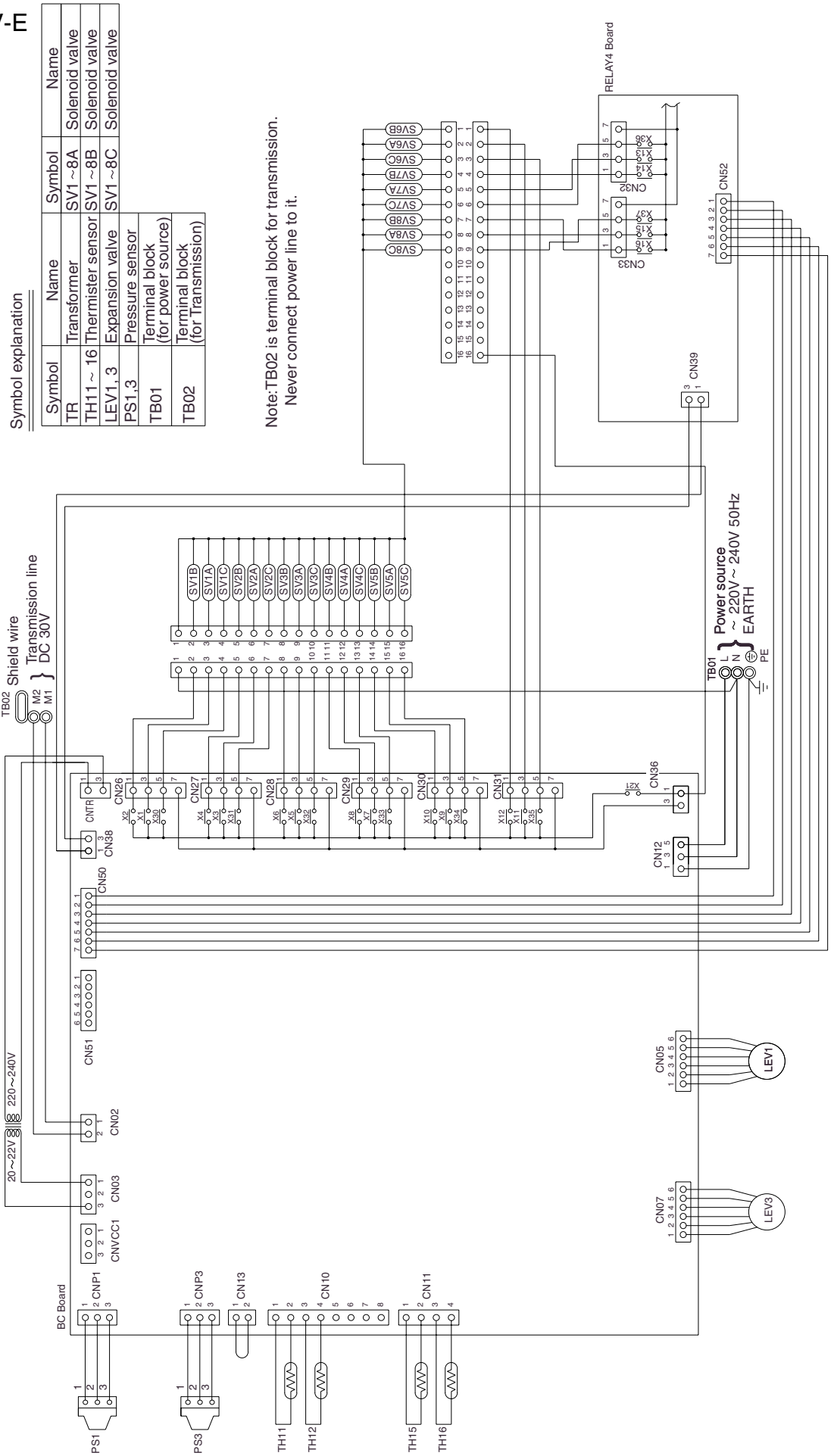
CMB-P108V-E

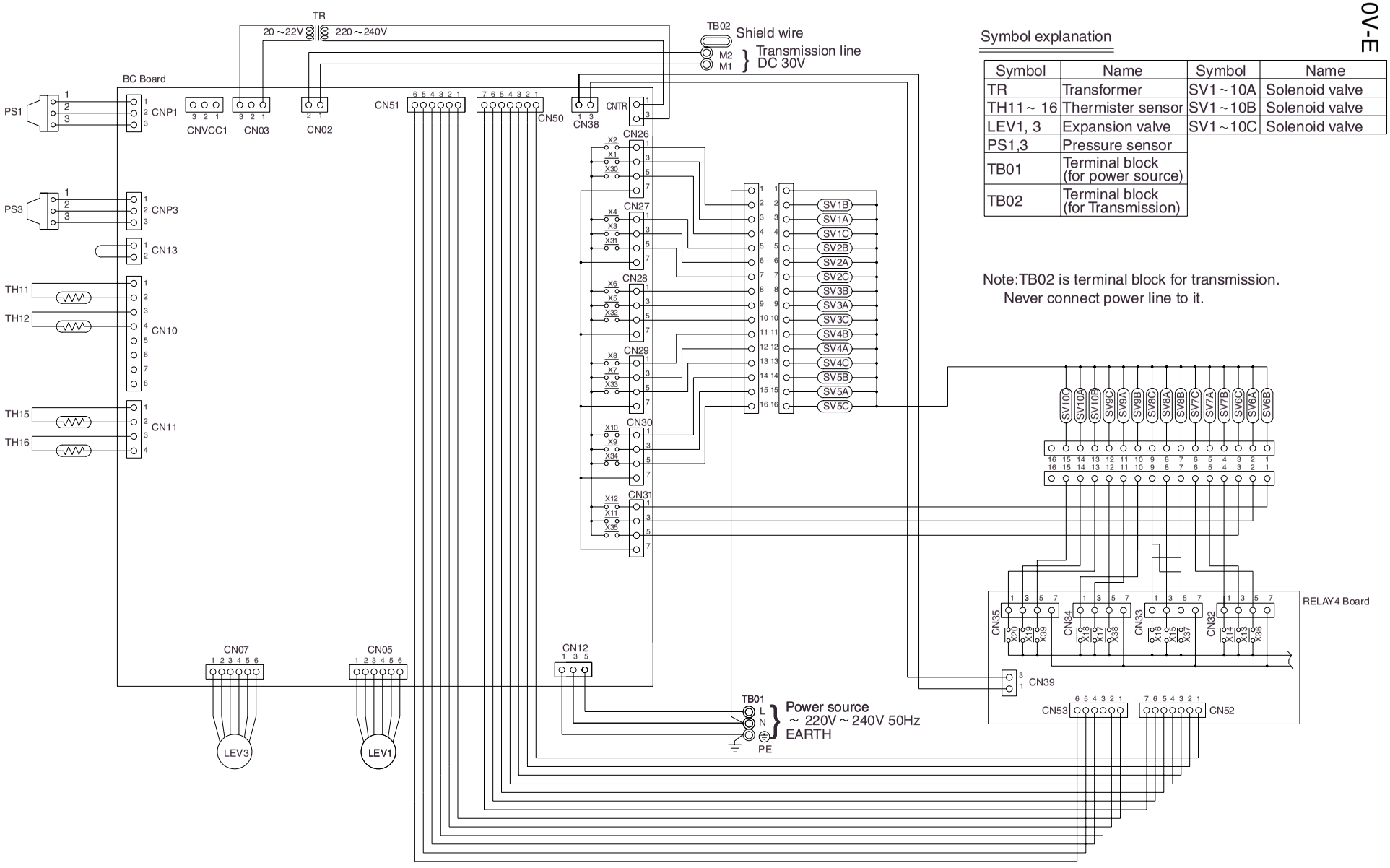
Symbol explanation

Symbol	Name
TR	Transformer
TH11～16	Thermister sensor
LEV1, 3	Expansion valve
PS1,3	Pressure sensor
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)

Symbol	Name
SV1～8A	Solenoid valve
SV1～8B	Solenoid valve
SV1～8C	Solenoid valve

Note:TB02 is terminal block for transmission.
Never connect power line to it.





Symbol explanation

Symbol	Name	Symbol	Name
TR	Transformer	SV1～10A	Solenoid valve
TH11～16	Thermister sensor	SV1～10B	Solenoid valve
LEV1, 3	Expansion valve	SV1～10C	Solenoid valve
PS1,3	Pressure sensor		
TB01	Terminal block (for power source)		
TB02	Terminal block (for Transmission)		

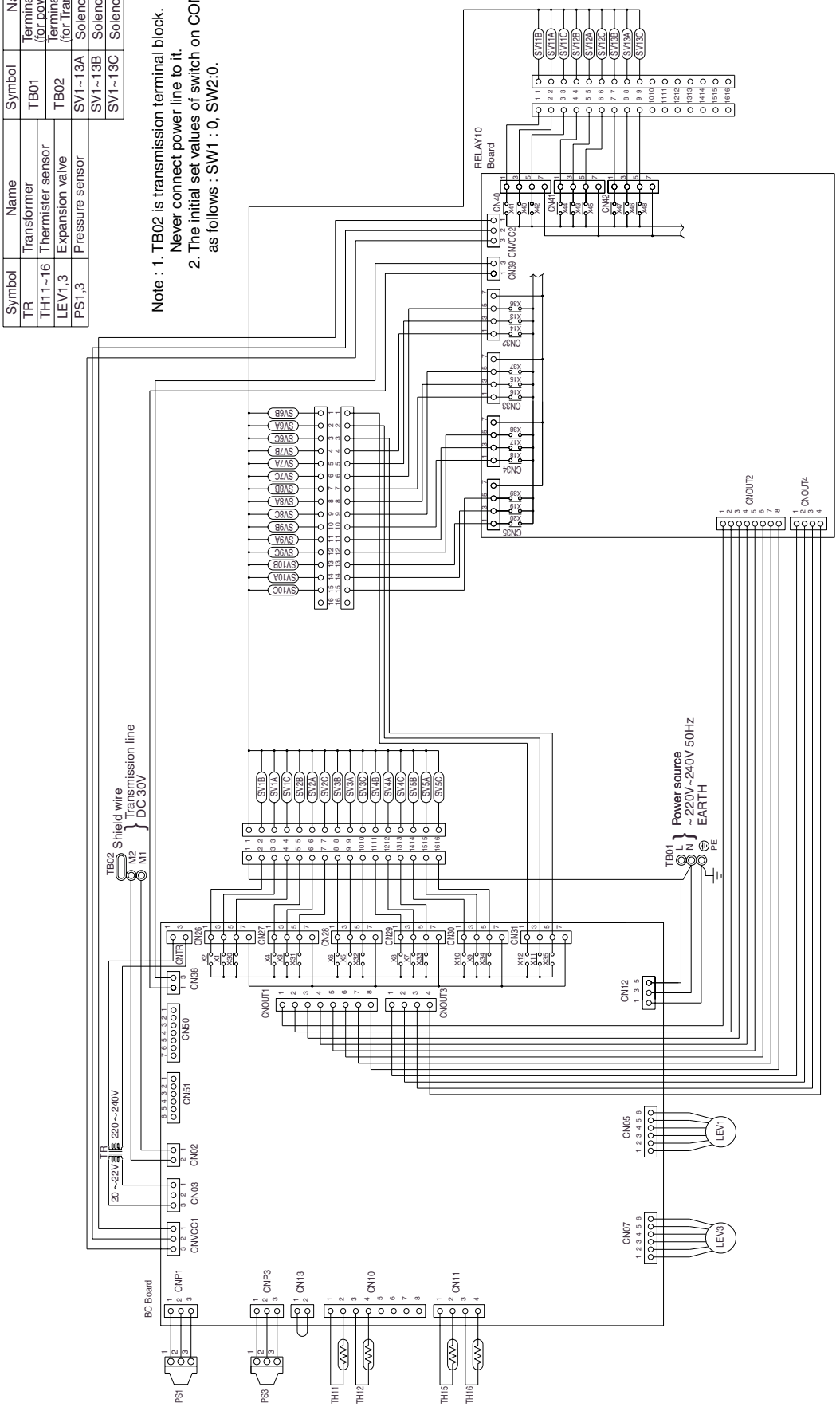
Note:TB02 is terminal block for transmission.
Never connect power line to it.

CMB-P1013V-E

Symbol	Name
TR	Transformer
TH11~16	Thermister sensor
LEV1,3	Expansion valve
PS1,3	Pressure sensor

Symbol	Name
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1~13A	Solenoid valve
SV1~13B	Solenoid valve
SV1~13C	Solenoid valve

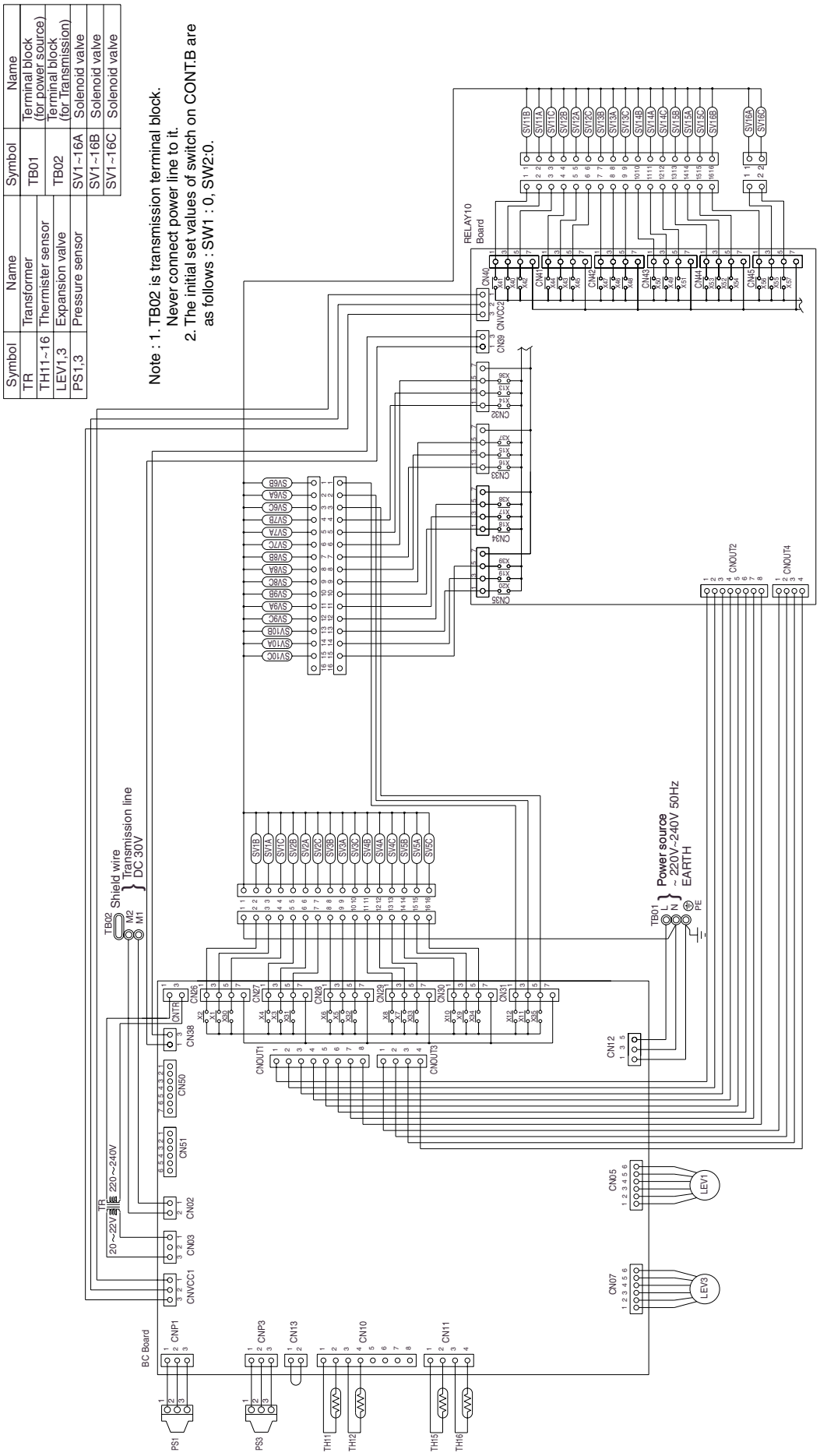
Note : 1. TB02 is transmission terminal block.
Never connect power line to it.
2. The initial set values of switch on CONT.B are as follows : SW1 : 0, SW2:0.


RELAY10 Board
BC Board
TB02 Shield wire Transmission line DC 30V
TB01 Power source ~ 220V~240V 50Hz EARTH
TR 220~240V 20~22V
CN01 CN02 CN03 CN50 CN51 CN05 CN07 CN12
CNP1 CNP3 CN13 CN10 CN11
CNVCC1 CN39 CNVCC2
CNOUT1 CNOUT2 CNOUT3 CNOUT4
CNTR
LEV1 LEV3
PS1 PS3 TH11 TH12 TH15 TH16

CMB-P1016V-E

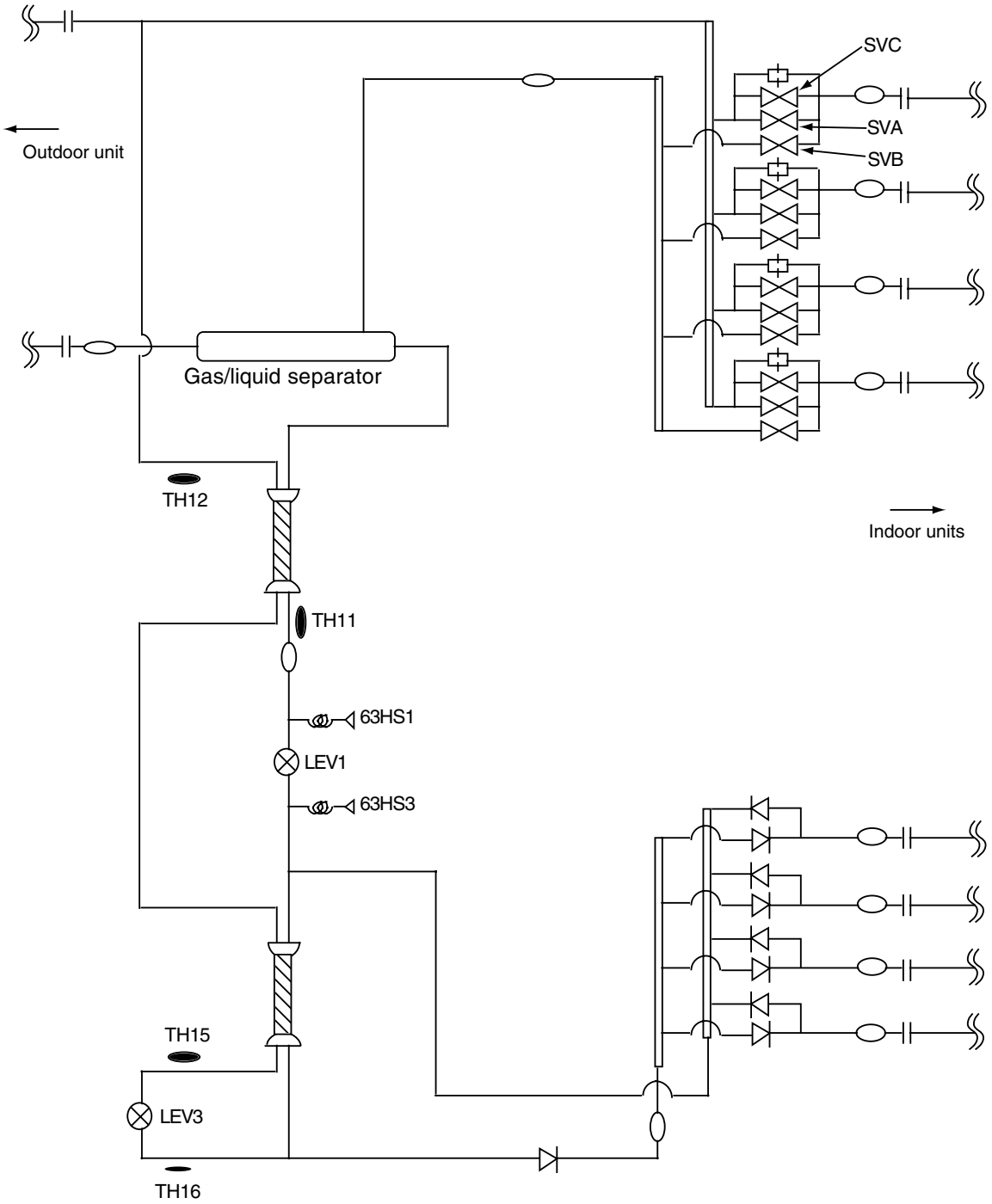
Symbol	Name	Symbol	Name
TR	Transformer	TB01	Terminal block (for power source)
TH11~16	Thermister sensor	TB02	Terminal block (for Transmission)
LEV1,3	Expansion valve	SV1~16A	Solenoid valve
PS1,3	Pressure sensor	SV1~16B	Solenoid valve
		SV1~16C	Solenoid valve

Note : 1. TB02 is transmission terminal block.
Never connect power line to it.
2. The initial set values of switch on CONT.B are as follows : SW1 : 0, SW2:0.



4. Refrigerant Circuit

CMB-P104V-E



CITY MULTI Controller

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1. Function table of controllers

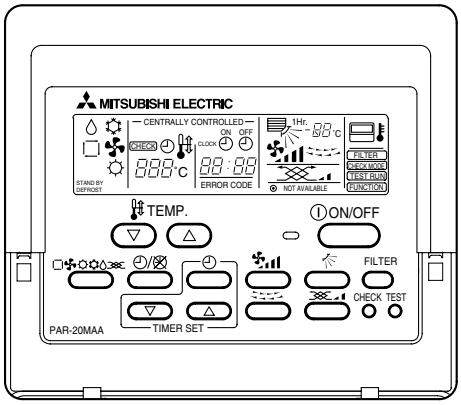
Model			Local remote controller					MELANS series (Man-machine type)					Interface type
			Remote controller		Simple remote controller	Wireless remote controller	Programme timer	Group remote controller	System remote controller	Centralized controller			Air conditioner interface
			PAR-20MAA	PAR-F27MEA	PAC-SE51CRA	PAR-FL31MA	PAC-SC32PTA	PAC-SC30GRA	PAC-SF41SCA	MJ-103MTRA	MJ-180A	MJ-310E	LMAP02-E
	No. of units controllable (Groups (G) / units)		1G/16units	1G/16units	1G/16units	1G/16units	1units	8G/16units	32G/50units	50G/50units	100G/100units 200G/200units	1000G/1000units	50G/50units
Operation	Start / Stop		○	○	○	○	×	◎	◎	◎	◎	◎	□
	Operation mode		○	○	×	○	×	◎	◎	◎	◎	◎	□
	Temperature setting		○	○	○	○	×	◎	◎	◎	◎	◎	□
	Permit / Prohibit direction		×	×	×	×	×	×	◎	◎	◎	◎	△
	Fan speed		○	○	○	○	×	◎	×	◎	○	○	□
	Air flow direction		○	○	×	○	×	◎	×	◎	○	○	×
Monitoring	Status		○	○	○	○	×	◎	◎	◎	◎	◎	□
	Error flashing		○	○	○	○	×	○	○	○	○	○	□
	Error content		○	○	○	×	×	○	○	○	○	○	×
	Filter sign		○	○	×	×	×	○	○	○	○	○	△
	Operating hour		×	×	×	×	×	×	×	×	×	○	△
	Operation mode		○	○	○	○	×	○	○	○	○	○	□
	Setting temperature		○	○	○	○	×	○	○	○	○	○	□
	Indoor temperature (intake)		○	○	×	×	×	○	×	○	×	○	□
	Permit / Prohibit for receiving		○	○	○	○	×	○	○	○	○	○	△
	Fan speed		○	○	○	○	×	○	×	○	○	○	□
	Air flow direction		○	○	×	○	×	○	×	○	○	○	×
Scheduling	Weekly		× / ○ *1	× / ○ *1	×	×	○	× / ◎ *1	× / ◎ *1	○	○	○	□
	Annual (Designated day setting)		×	×	×	×	×	×	×	×	○	○	□
	One day		×	×	×	×	×	×	×	×	×	○	□
	Times of stops / Starts per day		1/1 / 48 *1	1/1 *2 / 48 *1	×	1/1	48	× /48 *1	× /48 *1	3/3	6	10	□
	Times of stops / Starts per week		×	×	×	×	336	× /336 *1	× /336 *1	21/21	42	70	□
	Auto off timer		×	○	×	×	×	×	×	×	×	×	□
	Minimum setting unit (minutes)		10/30 *1	10/30 *1	×	10	30	× /30 *1	× /30 *1	10	1	1	□
Recording	Error history		×	×	×	×	×	○	×	○	○	○	□
	Daily / Monthly reports		×	×	×	×	×	×	×	×	×	○	□
	Electricity charges		×	×	×	×	×	×	×	×	×	○	□
Others	Set temperature range limite		×	○	×	×	×	×	×	×	×	×	□
	Auto lock		×	○	×	×	×	×	×	×	×	×	□
Control and management	Ventilation (group / interlocked)		× / ○	× / ○	×	×	×	× / ○	○ / ○	○	○ / ×	○ / ▲	□
	Group setting		× *3	○	○	×	×	○	○	○	○	○	□
	Block setting		×	×	×	×	×	×	×	×	×	○	□
	Revision of electricity charges		×	×	×	×	×	×	×	×	×	■	□
Operation	Ventilation (group / interlocked)	Start / Stop	– / ○	– / ○	– / ○	– / ○	×	– / ◎	◎ / ◎	◎ / ◎	◎ / ◎	◎ / ◎	□
		Fan speed	– / ○	– / ○	– / ×	– / ×	×	– / ○	– / ×	◎ / ◎	○ / ×	○ / ○	□
		Ventilation mode	– / ×	– / ×	– / ×	– / ×	×	– / ×	◎ / ×	◎ / ×	◎ / ×	◎ / ×	△
Monitoring	Ventilation (group / interlocked)	Status	– / ○	– / ○	– / ×	– / ×	×	– / ○	◎ / ×	◎ / ◎	◎ / ×	◎ / ○	□
		Fan speed	– / ○	– / ○	– / ×	– / ×	×	– / ○	– / ×	○ / ○	○ / ×	○ / ○	□
		Ventilation mode	– / ×	– / ×	– / ×	– / ×	×	– / ×	○ / ×	○ / ×	○ / ×	○ / ×	△

◎: Each group / Batched ○: Each group □: Depend on the Building management system ■: Block (City Multi indoor unit only)
▲: Set up by a local remote controller △: Please inquire ×: Not available –: Not used

*1: When PAC-SC32PTA is connected. *2: daily timer availability *3: For group operation, cross-over wring is required between indoor unit.

2. Local remote controller

2-1 Wired remote controller (PAR-20MAA)



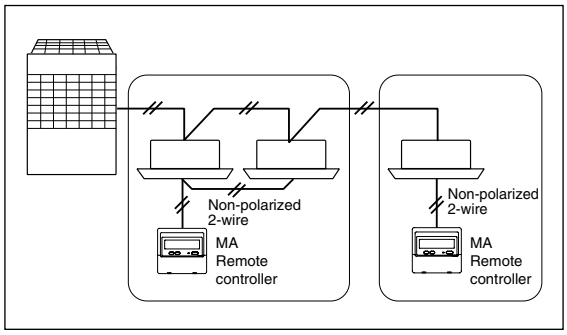
- Group operation is possible without requiring address setting.
- Usable as the local remote controller for System Controller (MELANS).
- Remote controller automatically judges the function required for indoor unit such as vane/louver selection.
  (*) For group operation, cross-over wiring is required between indoor units.
  (*) Combined use with M-NET remote controller (F27MEA, Simple R/C, LOSSNAY R/C) can not be conducted inside a group.

■ Functions

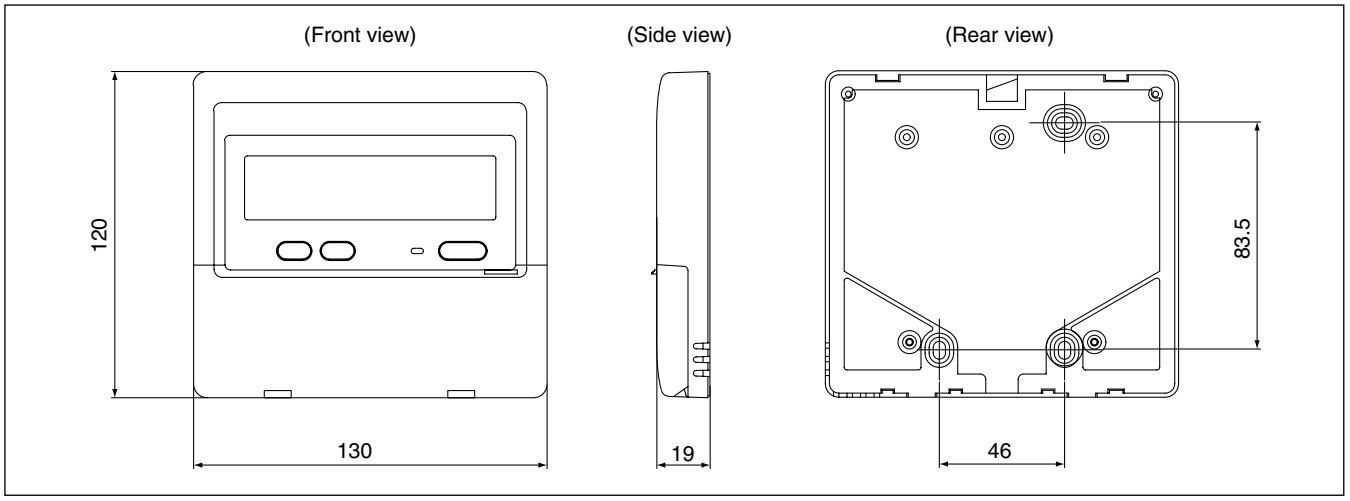
□:Each unit ○:Each group ●:Each block
△:Each floor ◎:Collective ×:Not available

Item	Description	Operations	Display
ON/OFF	Run and stop operation for a single group	○	○
Operation mode switching	Switches between Cool / Dry / Auto / Fan / Heat. Operation modes vary depending on the air conditioner unit. Auto mode is the City Multi R2 and WR2 series only.	○	○
TEMP. Temperature setting	Sets the temperature for a single group Range of temperature setting Cool/Dry : 19˚C - 30˚C Heat : 17˚C - 28˚C Auto : 19˚C - 28˚C	○	○
Fan speed setting	Models with 4 air flow speed settings: Hi/Mid-2/Mid-1/Low Models with 3 air flow speed settings: Hi/Mid/Low Models with 2 air flow speed settings: Hi/Low	○	○
Air flow direction setting	Air flow direction angles 100% - 80% - 60% - 40%, Swing, Louver ON/OFF Air flow direction settings vary depending on the model.	○	○
TIMER SET Timer operation	One ON/OFF setting can be set for one day. By connecting the Programme timer, set 48 ON/OFF settings every 30 minutes. By loading only one pattern, it can operate as a weekly schedule.	○	○
Permit / Prohibit local operation	Individually prohibit operation of each local remote control function (Start/Stop, Change operation mode, Set temperature, Reset filter). *1: When the local remote controller inactivation command is received from the master system controller, "- CENTRALLY CONTROLLED -" is displayed.	×	*1 ○
Prohibition/permission of specified mode (Cooling prohibited /heating prohibited /cooling-heating prohibited)	By the setting from System Controller, the operation for the following modes is prohibited. At cooling prohibited : Cool, Dry, Auto, At heating prohibited : Heat, Auto, At cooling-heating prohibited : Cool, Heat, Dry, Auto	×	○
Indoor unit intake temperature	Measures the intake temperature of the indoor unit when the indoor unit is operating.	×	○
Error	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed.	×	□
Test run	This operates air conditioner units in test run mode.	○	○
Ventilation equipment	Up to 16 indoor units can be connected to an interlocked system that has one Lossnay. Lossnay items that can be set are "Hi" "Low" "Stop". Ventilation mode switching is not available.	○	○
External input/output	By connecting the Programme timer "PAC SC32PTA", a weekly schedule can be controlled. External start/stop control and emergency stop is not supported.	○	○

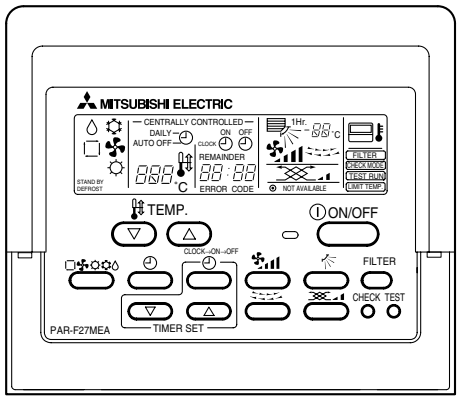
■ System example



■ External dimension

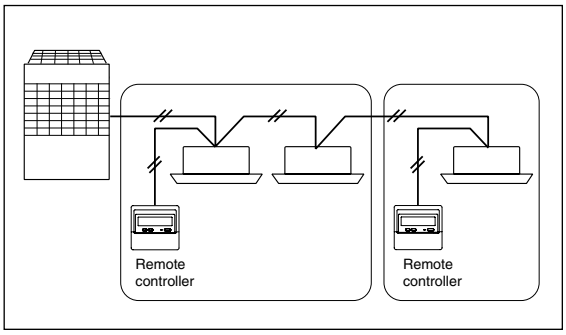


(PAR-F27MEA)

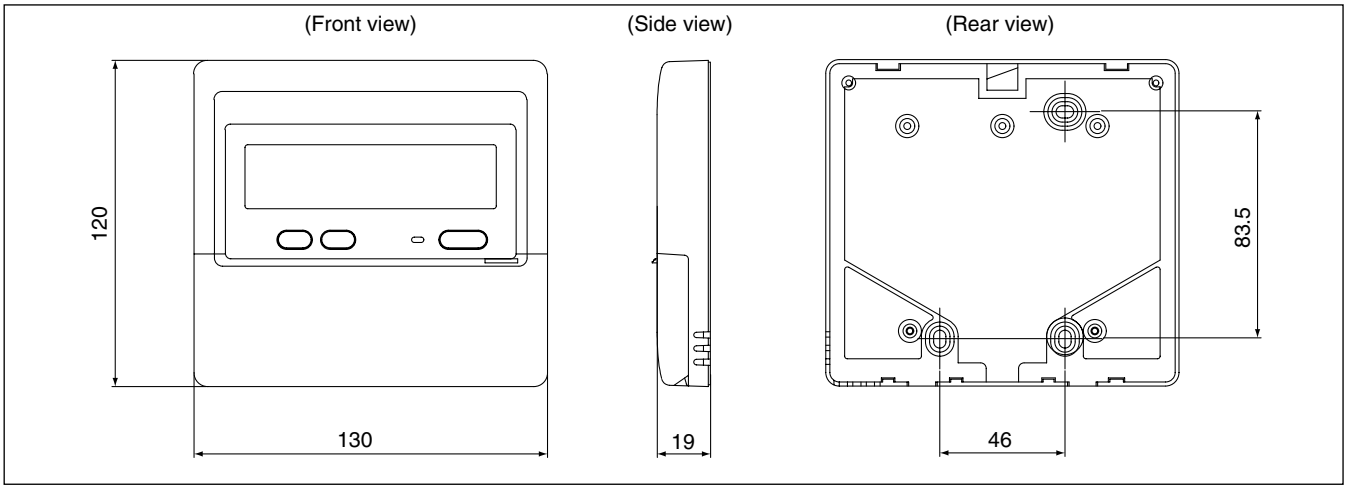


- Three timer modes are prepared by enriching the timer function.The timer mode can selectively be used depending on the application configuration.
- The range of room temperature setting can be limited by the initial setting.By setting the room temperature range narrower than usual setting, cooling/heating operation with excessive temperature can be prevented thus saving energy easily.
- Equipped with simplified button locking function.

■ System example



■ External dimension

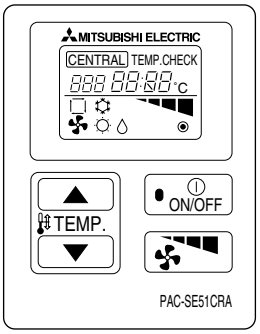


■ Functions

□:Each unit ○:Each group ●:Each block
△:Each floor ◎:Collective ✕:Not available

Item	Description	Operations	Display
ON/OFF	Run and stop operation for a single group	○	○
Operation mode switching	Switches between Cool / Dry / Auto / Fan / Heat. Operation modes vary depending on the air conditioner unit. Auto mode is the City Multi R2 and WR2 series only.	○	○
Temperature setting	Sets the temperature for a single group Range of temperature setting Cool/Dry : 19˚C - 30˚C Heat : 17˚C - 28˚C Auto : 19˚C - 28˚C	○	○
Fan speed setting	Models with 4 air flow speed settings: Hi/Mid-2/Mid-1/Low Models with 3 air flow speed settings: Hi/Mid/Low Models with 2 air flow speed settings: Hi/Low	○	○
Air flow direction setting	Air flow direction angles 100% - 80% - 60% - 40%, Swing, Louver ON/OFF Air flow direction settings vary depending on the model.	○	○
Permit / Prohibit local operation	Individually prohibit operation of each local remote control function (Start/Stop, Change operation mode, Set temperature, Reset filter). *1: When the local remote controller inactivation command is received from the master system controller, "-CENTRALLY CONTROLLED -" is displayed.	✕	*1 ○
Prohibition/permission of specified mode (Cooling prohibited /heating prohibited /cooling-heating prohibited)	By the setting from System Controller, the operation for the following modes is prohibited. At cooling prohibited : Cool, Dry, Auto, At heating prohibited : Heat, Auto, At cooling-heating prohibited : Cool, Heat, Dry, Auto	✕	○
Indoor unit intake temperature	Measures the intake temperature of the indoor unit when the indoor unit is operating.	✕	○
Error	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed.	✕	□
Timer operation	Thanks to the three timer modes equipped, a proper mode can be selected to meet the usage. One day timer : ON/OFF setting of one time on one day can be applied. Daily timer : ON/OFF setting by the One day timer can be repeated for everyday. Auto OFF timer : OFF timer can be set in a range from 30 minutes to 4 hours. *Setting of Auto OFF timer automatically activates OFF timer at the next operation. This function can be utilized to prevent the negligence of OFF setting. *Weekly schedule in only one patterns can be employed by connecting Program timer. ★2	○	○
Test run	This operates air conditioner units in test run mode.	○	○
Ventilation equipment	Up to 16 indoor units can be connected to an interlocked system that has one Lossnay. Lossnay items that can be set are "Hi" "Low" "Stop". Ventilation mode switching is not available.	○	○
Function to limit the setting range of room temperature (Set temperature range limit)	The range of room temperature setting can be limited by the initial setting.The lowest limit temperature can be made higher than the usual (19˚C) at cooling/drying, while the upper limit temperature lower than the usual (28˚C) at heating. *When making the function to limit room temperature setting range effective, the operation mode can not be set to the auto mode.	○	○
Easy-to-operate simplified locking function (Auto lock function)	Setting/releasing of simplified locking for remote control switch can be performed. · Locking of all switches · Locking of all switches except Start/Stop switch	○	○
External input/output	By connecting the Programme timer "PAC SC32PTA", a weekly schedule can be controlled. External start/stop control and emergency stop is not supported.	○	○

2-2 Simple remote controller (PAC-SE51CRA)



- To simplify operation of the system, the range of controls has been limited to Start/Stop, room temperature and fan speed.
- The only wiring required is cross-over wiring based on two-wire signal lines.
- Room temperature sensor is built-in to the unit. The indoor unit can be replaced this with the body thermostat.

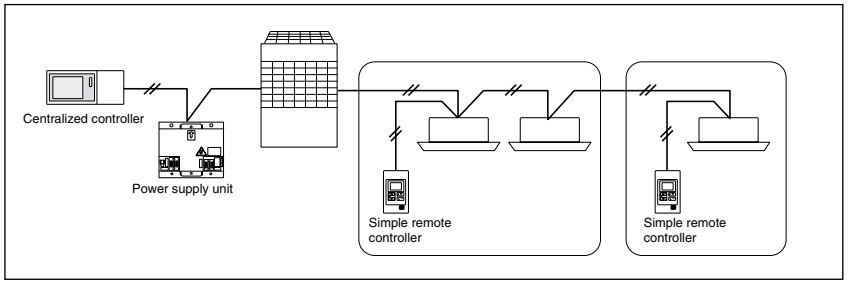
※: This equipment does not have functions such as operation mode switching, test run mode, self checking ability and settings for interlocking. Therefore, always use this equipment together with a PAR-F27ME or other system controller.

※: Combined use with MA remote controller (PAR-20MAA) can not be conducted inside a group.

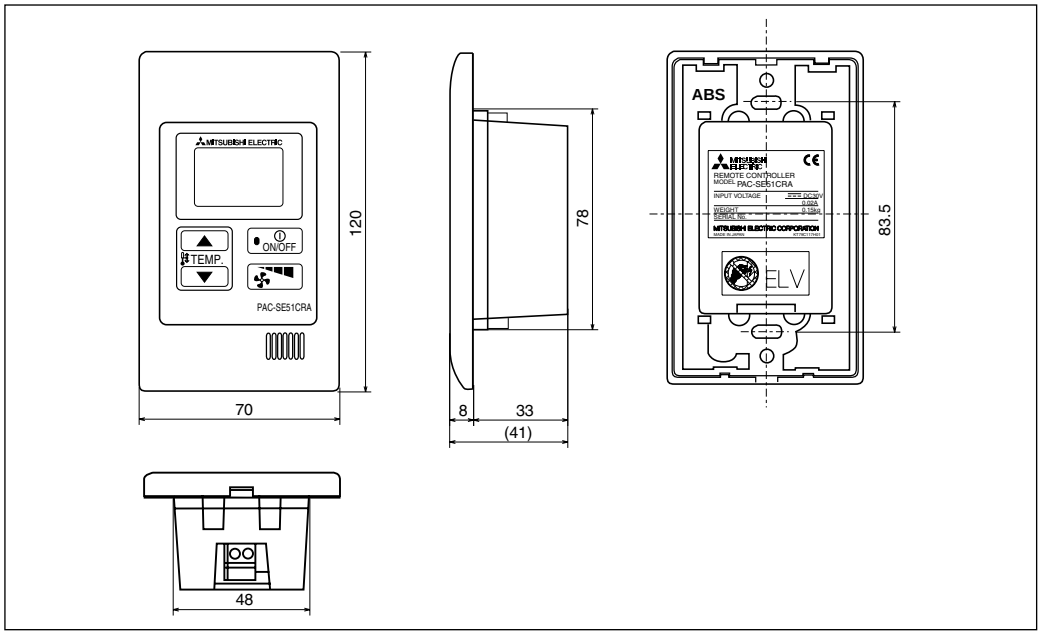
□:Each unit ○:Each group ●:Each block
△:Each floor ◎:Collective ×:Not available

Item	Description	Operations	Display
ON/OFF	Run and stop operation for a single group	○	○
Operation mode switching	Switches between Cool / Dry / Auto / Fan / Heat. Operation modes vary depending on the air conditioner unit. Auto mode is the City Multi R2 and WR2 series only.	×	○
Temperature setting	Sets the temperature for a single group Range of temperature setting Cool/Dry : 19˚C - 30˚C Heat : 17˚C - 28˚C Auto : 19˚C - 28˚C	○	○
Fan speed setting	Models with 4 air flow speed settings: Hi/Mid-2/Mid-1/Low Models with 2 air flow speed settings: Hi/Low	○	○
Air flow direction setting	Air flow direction angles 100% - 80% - 60% - 40%, Swing, Louver ON/OFF Air flow direction settings vary depending on the model.	×	×
Timer operation	Not available	×	×
Permit / Prohibit local operation	Individually prohibit operation of each local remote control function (Start/Stop, Set temperature). *1: When the local remote controller inactivation command is received from the master system controller, "- CENTRALLY CONTROLLED -" is displayed.	×	*1 ○
Indoor unit intake temperature	Measures the intake temperature of the indoor unit only when the indoor unit is operating.	×	×
Error	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed.	×	□
Test run	This operates air conditioner units in test run mode. *2: The display for test run mode will be the same as for normal start/stop (no display "test run").	×	*2 ○
Ventilation equipment	Up to 16 indoor units can be connected to an interlocked system that has one Lossnay.	×	×
External input/output	By connecting the Programme timer, allocate A/B2 mode for a week and control a week's schedule. External start/stop control and emergency stop is not supported.	×	×

■ System example



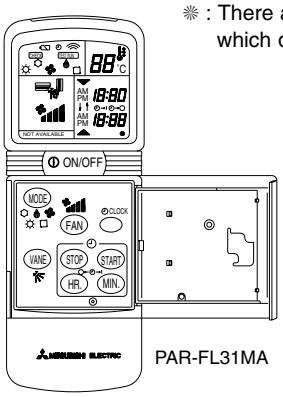
■ External dimension



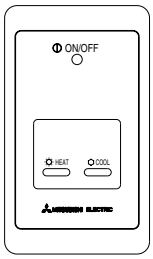
PAC-SE51CRA

2-3 Wireless remote controller
Controller :PAR-FL31MA
Signal receiving unit :PAR-FA31MA

※ : There are some indoor unit models which do not attach this unit.



PAR-FL31MA



PAR-FA31MA

- It can operate in a group system without requiring address settings.
- When operating, it displays LED lamps. When errors occur, the error code can be shown by the LED flash count.

※: If an indoor unit with different functionality is operating inside the same group, please note there may be cases when functionality is partially disabled for batch control.

※: Wireless remote controllers can only be used for a single refrigerant system.

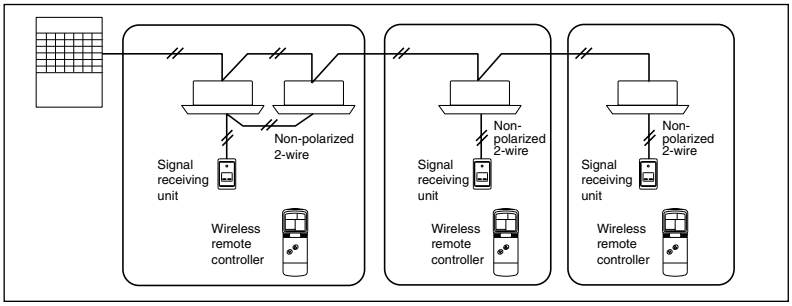
※: If you use a system controller to centrally control a group, you will need cross-wiring between indoor units when using a wireless remote controller.
Also ensure there is no difference between the group setting of the master system controller and the cross wiring across indoor units when wiring and setting cross wires.

□:Each unit ○:Each group ●:Each block
△:Each floor ◎:Collective X:Not available

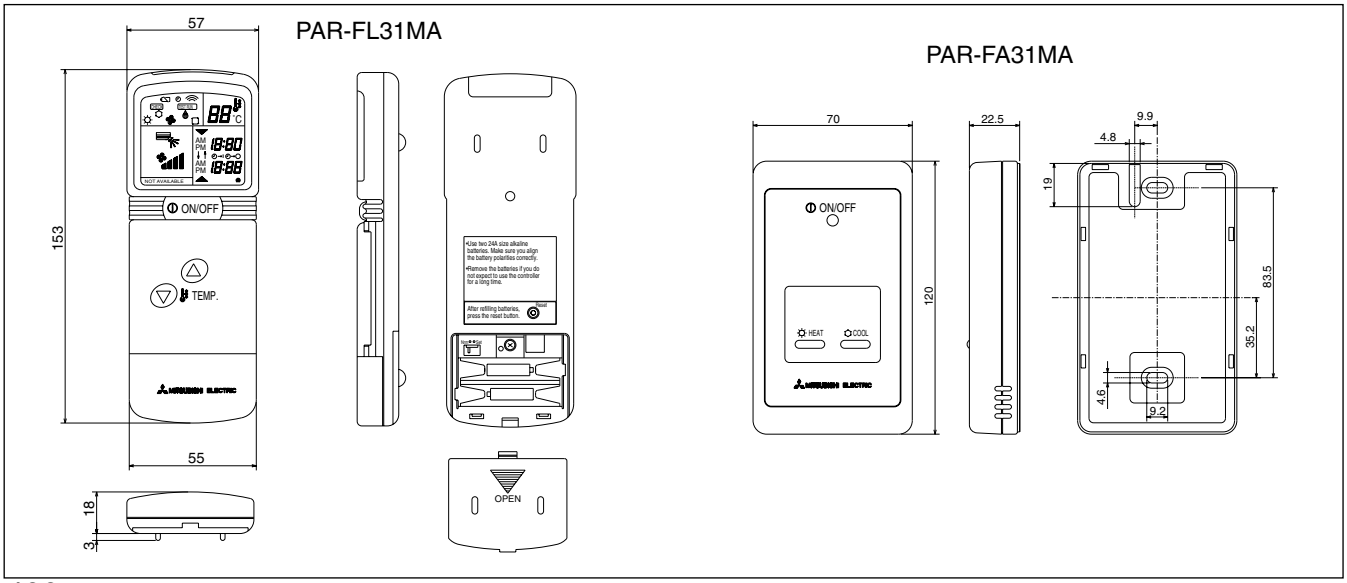
Item	Description	Operations	Display
ON/OFF	Run and stop operation for a single group	○	○
Operation mode switching	Switches between Cool / Dry / Fan / Heat / Auto. Operation modes vary depending on the air conditioner unit. Auto mode is the City Multi R2 and WR2 series only.	○	○
Temperature setting	Sets the temperature for a single group Range of temperature setting Cool/Dry : 19˚C - 30˚C Heat : 17˚C - 28˚C Auto : 19˚C - 28˚C	○	○
Fan speed setting	Models with 4 air flow speed settings: Hi/Mid-2/Mid-1/Low Models with 2 air flow speed settings: Hi/Low	※	※
Air flow direction setting	Air flow direction angles 100% - 80% - 60% - 40%, Swing. Air flow direction settings vary depending on the model.	※	※
Timer operation	One ON/OFF setting can be set for one day.	○	○
Permit / Prohibit local operation	Individually prohibit operation of each local remote control function (Start/Stop, Change operation mode, Set temperature, Reset filter). *1: If operation is performed when the local remote controller inactivation command is received from the master system controller, a buzzer will ring and an LED will flash.	X	*1 ○
Indoor unit intake temperature	Measures the intake temperature of the indoor unit when the indoor unit is operating.	X	X
Error	When an error occurs on the air conditioner unit, the operation lamp on the signal receiving unit will flash.	X	○
Test run	This operates air conditioner units in test run mode.	○	○
Ventilation equipment	Up to 16 indoor units can be connected to an interlocked system that has one Lossnay.	X	X
External input/output	By connecting the Programme timer, allocate A/B2 mode for a week and control a week's schedule.	X	X

※ Some models will have differnt display for the air flowdirection and fan speed. Set the air flow direction and fan speed when performing initial setting.

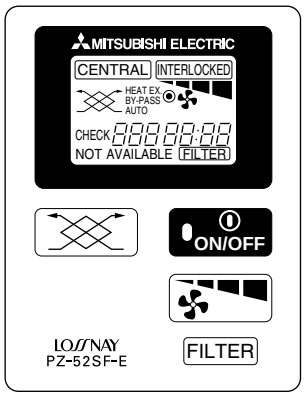
■ System example



■ External dimension



2-4 LOSSNAY remote controller (PZ-52SF-E)



- Stand-alone Lossnay operation is possible by commands from a centralized controller or Lossnay remote controller. (MJ-103 is a centralized controller that supports Lossnay operation.)
- The Lossnay remote controller is capable of changing the air flow and vent modes.
- All the wiring is cross-wiring that uses non-polar two wire system signal cables.

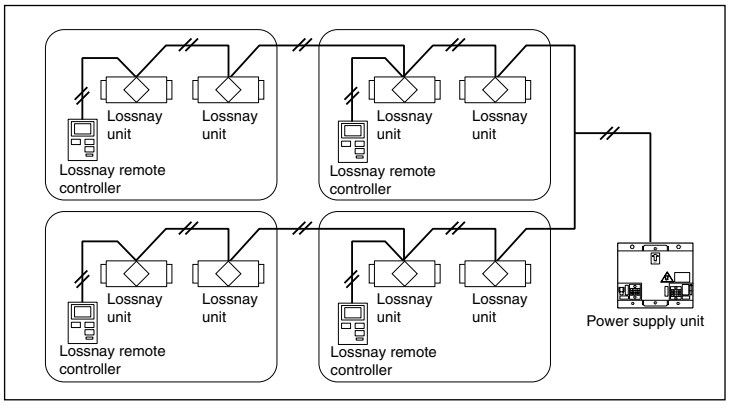
※ : When setting up a Lossnay stand-alone system or when setting up a Lossnay and centralized controller system, connect a power supply unit for the signal cables.

※ : It is impossible to use a Lossnay remote controller for Lossnay unit that is interlocked other indoor unit (except for some models).

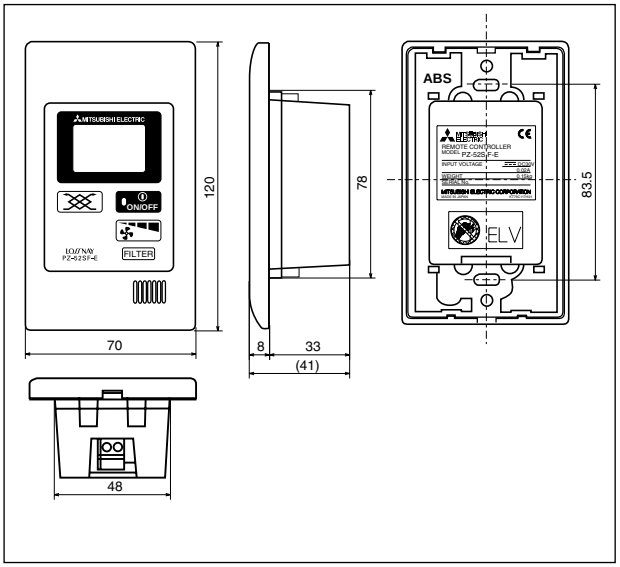
□:Each unit ○:Each group ●:Each block
△:Each floor ◎:Collective X:Not available

Item	Description	Operations	Display
ON/OFF	Run and stop operation for a Lossnay unit	○	○
Operation mode switching	Switches between automatic ventilation/ vent - heat interchange/ normal ventilation Note: Operation modes vary depending on the model. When connecting to only models without a damper, these models cannot be used.("NOT AVAILABLE" will appear in the display.)	○	○
Temperature setting	Not available	X	X
Fan speed setting	Models with 2 air flow speed settings: Hi/Low When only connected to single notch models, this function is disabled.	○	○
Air flow direction setting	Not available	X	X
Timer operation	Not available	X	X
Permit / Prohibit local operation	Individually prohibit operation of each local remote control function (Start/Stop, Reset filter). *1: When the local remote controller inactivation command is received from a master system controller, " CENTRAL " is displayed.	X	*1 ○
Indoor unit intake temperature	Not available	X	X
Error	When an error occurs on the air conditioner unit, the operation lamp on the signal receiving unit will flash.	X	□
Test run	There is no test run switch for Lossnay remote controllers. Set test run on a Lossnay by using the test run switch on the Lossnay unit. *2: Cancel by operating the start/stop switch after switching off the Lossnay unit test run switch.	*2 X	○
Ventilation equipment	Up to 16 indoor units can be connected to an interlocked system that has one Lossnay.	○	○
Interlocked operation	This is displayed to indicate it is being operated by an operation control unit's external control terminal for an interlocked system that contains Lossnay units and indoor units.	X	○
External input/output	The programme timer (PAC-YT30ST) cannot be connected. When external ON/OFF is required, use the Lossnay unit's external control input.	X	X

■ System example

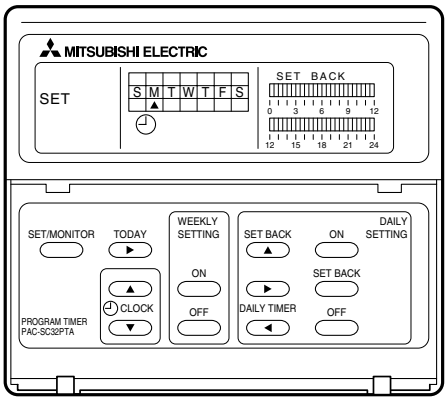


■ External dimension



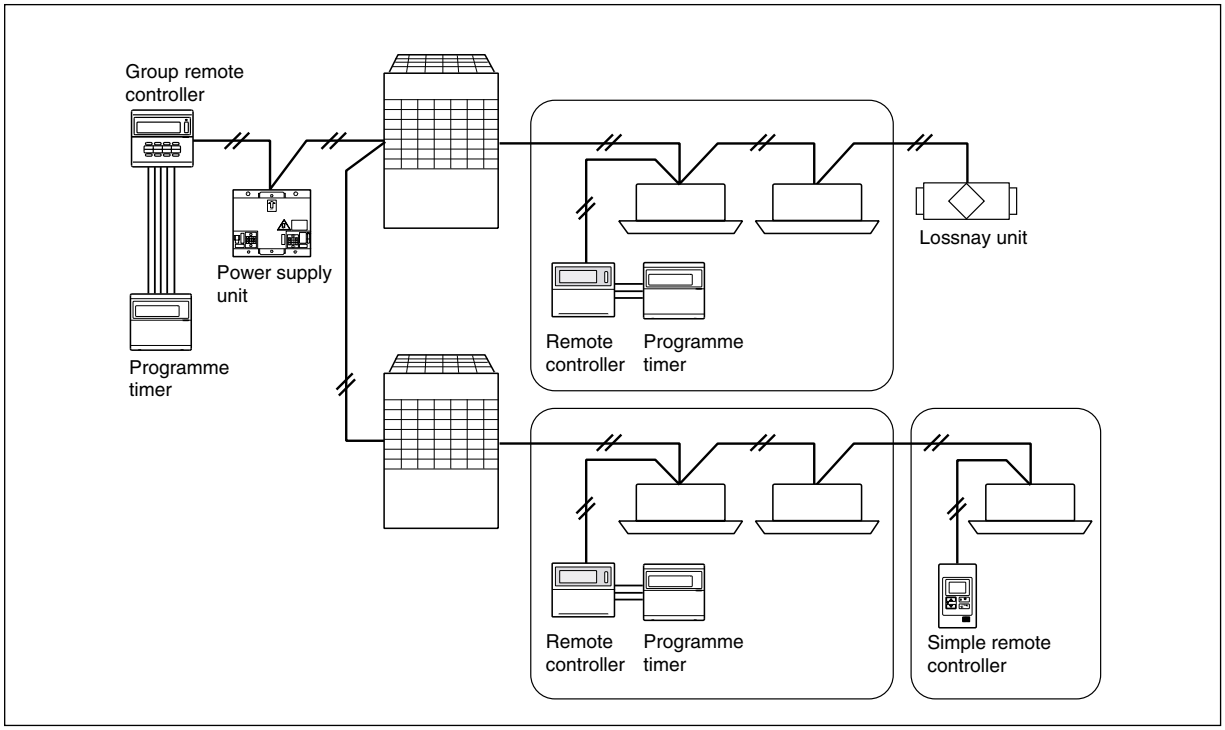
PZ-52SF-E

2-5 Programme timer (PAC-SC32PTA)

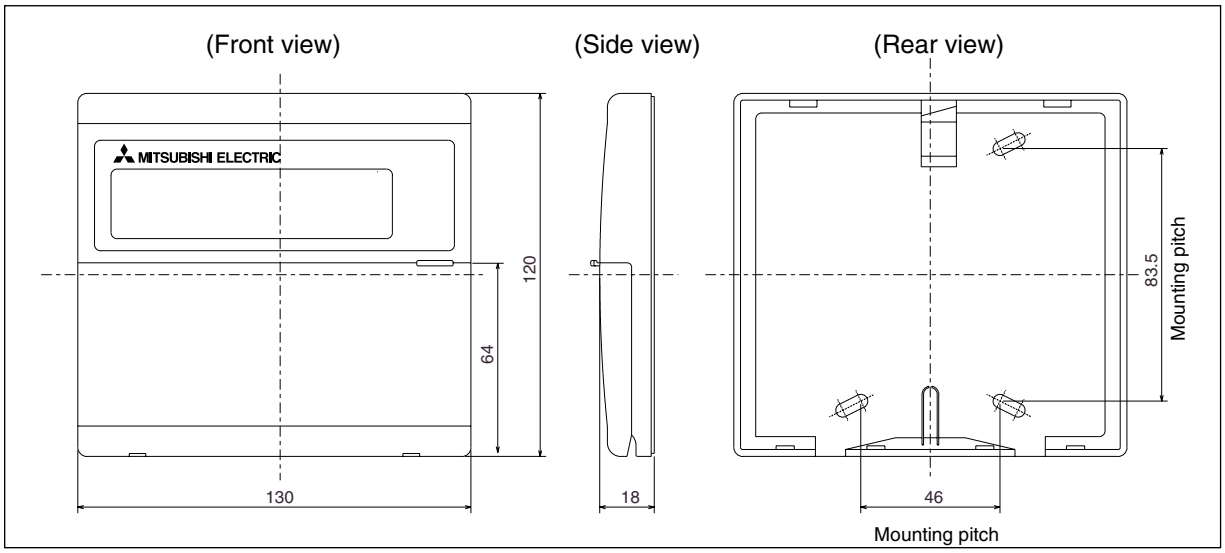


- To be set the ON/OFF schedule each 30 minutes. (1 pattern)
- To be set the effective/ineffective of schedule in each individual days.
- To be set the set-buck temperature. (0, 1, 2, 6, 8 deg.)

■ System example



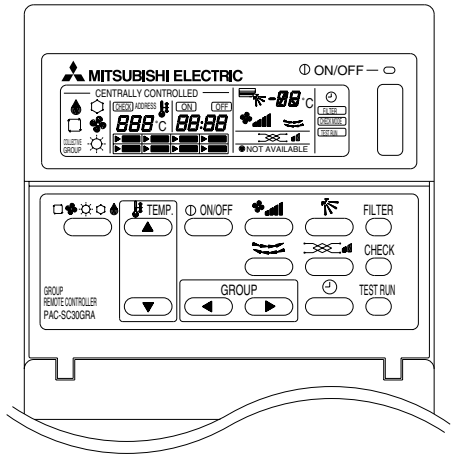
■ External dimension



PAC-SC32PTA

3. System controller

3-1 Group remote controller (PAC-SC30GRA)



- Up to 8 groups can be operated (maximum of 16 units). Just by pressing switches, groups can be started and stopped individually, or all groups can be started and stopped as a batch.
- Detailed settings and operations can also be made for each individual group.
- All the wiring is simply done with non-polarized two wire signal lines. The connection is the same as the connection to the master system controller.
- It supports operation of groups that can extend beyond one refrigerant system. Furthermore, it is possible to drive interlocked systems that use ventilator equipment or drive ventilator equipment in a stand-alone situation.

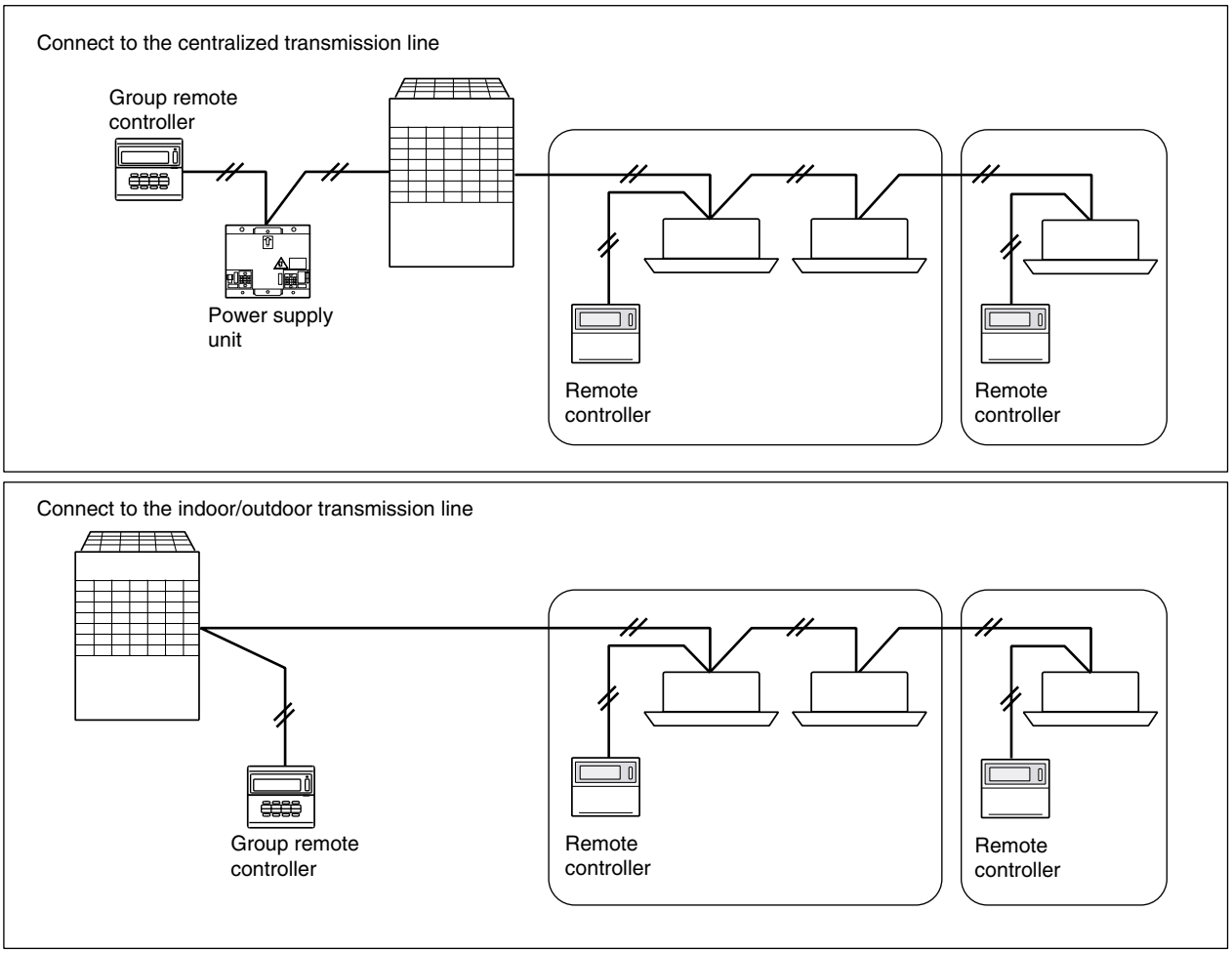
※: With the group remote controller, you cannot control groups that only contain the Lossnay remote controller.
※: It is impossible to use the group remote controller to control K control units.
※: When connecting to signal cables for central control, it must use a power supply unit for the signal cables.

■ Functions

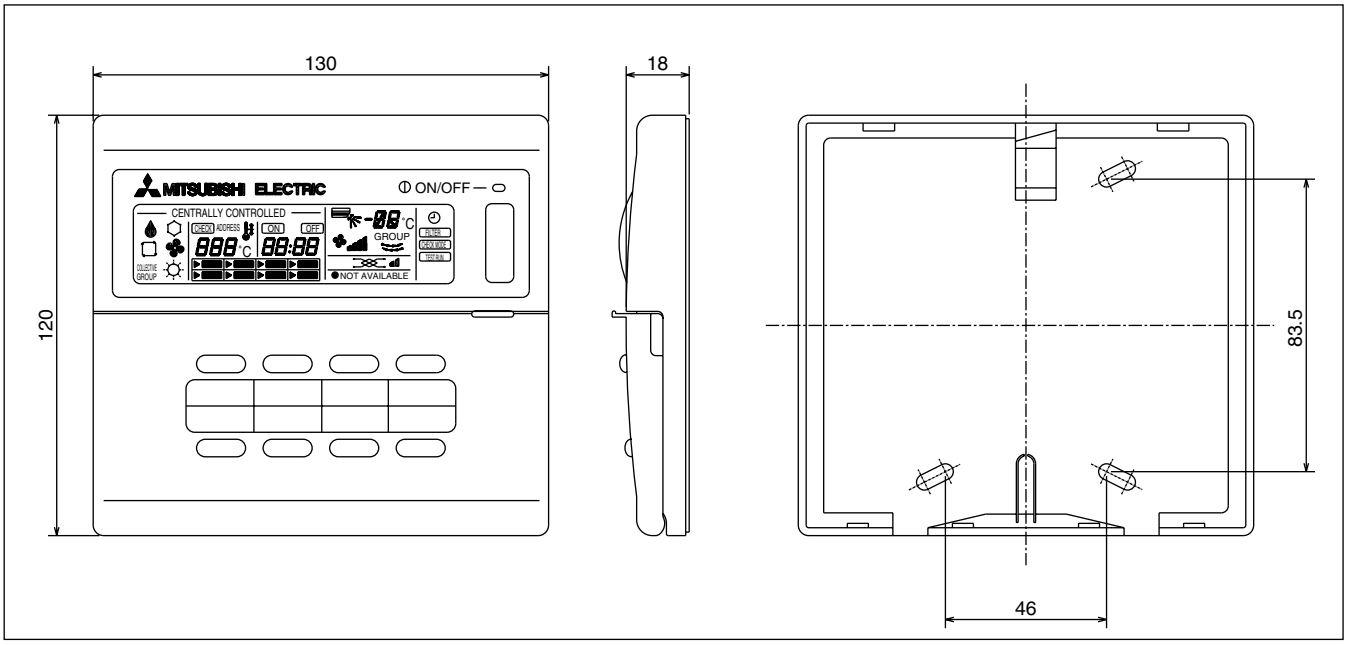
□:Each unit ○:Each group ●:Each block
△:Each floor ◎:Collective X:Not available

Item	Description	Operations	Display
ON/OFF	Run and stop operation for the air conditionaer units *1: Even when only a single indoor unit connected to the group remote controller is operated, the collective ON/OFF lamp will light up.	○◎	*1 ○◎
Operation mode switching	Switches between Cool / Dry / Auto / Fan / Heat. *2:When collective operation is set, the display will show "COLLECTIVE" in the bottom left of the LCD screen. Operation modes vary depending on the air conditioner unit. Auto mode is the City Multi R2 and WR2 series only.	○◎	*2 ○
Temperature setting	Sets the temperature for a single group Range of temperature setting Cool/Dry : 19˚C - 30˚C Heat : 17˚C - 28˚C Auto : 19˚C - 28˚C *3:When collective operation is set, the display will show "COLLECTIVE" in the bottom left of the LCD screen.	○◎	*3 ○
Fan speed setting	Models with 4 air flow speed settings: Hi/Mid-2/Mid-1/Low Models with 2 air flow speed settings: Hi/Low *4:When collective operation is set, the display will show "COLLECTIVE" in the bottom left of the LCD screen.	○◎	*4 ○
Air flow direction setting	Air flow direction angles 100% - 80% - 60% - 40%, Swing, Louver ON/OFF Air flow direction settings vary depending on the model. *5:When collective operation is set, the display will show "COLLECTIVE" in the bottom left of the LCD screen.	○◎	*5 ○
Timer operation	It is impossible to set schedules by only using this group remote controller. By connecting a program timer, set 48 ON/OFF settings every 30 minutes. By loading only one pattern, it can operate as a weekly schedule. *6: If the Programme timer is connected, you can enable/disable timer operation for each group.	*6 ○◎	○
Permit / Prohibit local operation	Individually prohibit operation of each local remote control function (Start/Stop, Change operation mode, Set temperature, Reset filter). *7: When the local remote controller inactivation command is received from a master system controller, "- CENTRALLY CONTROLLED -" is displayed.	X	*7 ○
Indoor unit intake temperature	Measures the intake temperature of the indoor unit only when the indoor unit is operating.	X	○
Error	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed. *8:This is indicated by the batch operation lamp.	X	*8 □◎
Test run	This operates air conditioner units in test run mode.	○	○
Ventilation equipment	Up to 16 indoor units can be connected to an interlocked system that has one Lossnay. Lossnay items that can be set are "Hi" "Low" "Stop". Ventilation mode switching is not possible. *9:When collective operation is set, the display will show "COLLECTIVE" in the bottom left of the LCD screen.	○◎	*9 ○
External input/output	By connecting the Programme timer "PAC-SC32PTA", a weekly schedule can be controlled. External start/stop control and emergency stop is not supported.	○◎	○

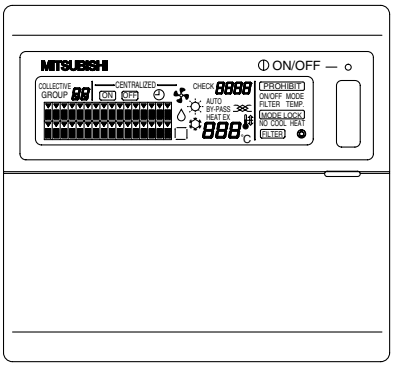
■ System example



■ External dimension



3-2 System remote controller (PAC-SF41SCA)



- Air conditioners of 32 groups / 50 sets can be controlled.
  - Air conditioners of 32 groups / 50 sets can be controlled with one remotecontroller successfully.
- The operating status can be judged at a glance through the liquid crystal screen.
  - Which group is currently running can be seen in a glance by viewing the operation status display for each group.
- Simple remote controller that limits the basic manipulation.
  - The manipulation for air conditioning equipment is limited to [Start/Stop], [Operating mode selection], [Temperature setting] and [Local control prohibition] thus assuring easy handling.
- The operation of local remote controller can be prohibited as required.
  - Using [Emergency stop input cable] provided with the controller in a same package enables the interlocking with a fire detector or to conduct emergency stop.

  (※) When emergency stopping function is applied, Programme timer can not be used.
- Scheduled operation can be employed.
  - Scheduled operation can be performed per group by connecting Programme timer.

  (※) Emergency stopping function can not be applied at the use of Programme timer.
- Independent operation of LOSSNAY is possible.
  - The grouping of LOSSNAY only can be performed. In addition, [Auto ventilation], [By-pass ventilation] or [Heat exchanger ventilation] can be selected.
- The operation modes can be limited depending on the season.
  - The operation modes for which the manipulation from local remote controller is not desired can be controlled and managed collectively from the system remote controller side.(Prohibition/permission of specified mode)
  - The selection of operation modes of Unit and local remote controller will be limited by setting from Unit.
- Can be connected with the indoor/outdoor transmission line of indoor units without Power supply unit. This saves writing work and installation work.

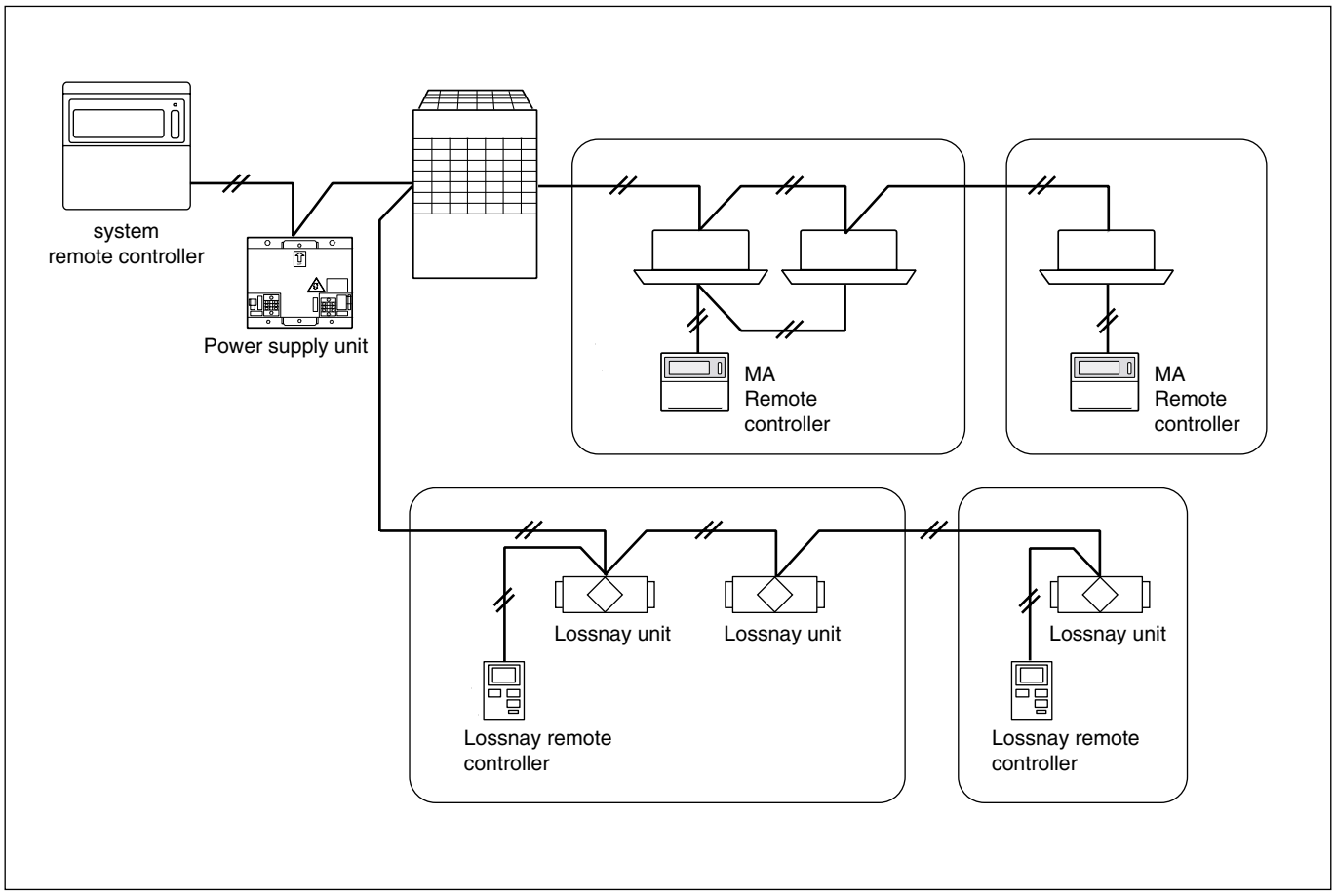
  (※) For the connection with the indoor/outdoor transmission line, the number of connectable set of indoor units and remote controllers is limited.

■ Functions

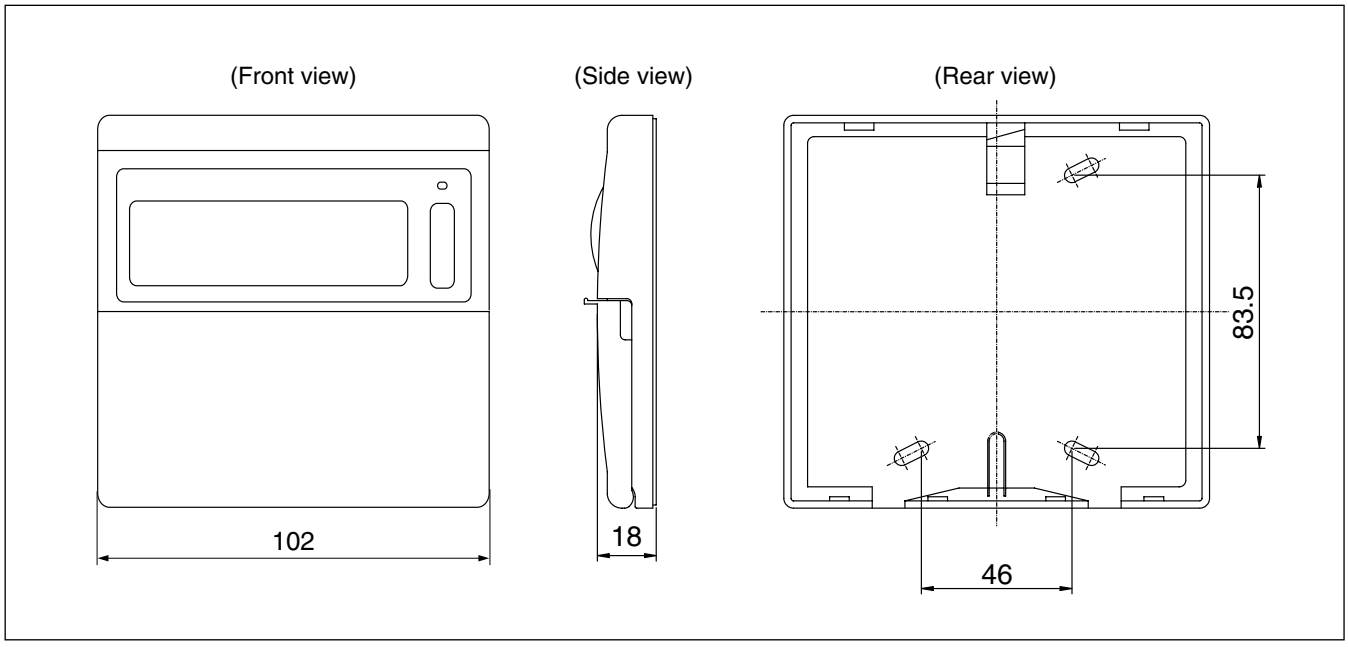
□:Each unit ○:Each group ●:Each block
△:Each floor ◎:Collective X:Not available

Item	Description	Operations	Display
ON/OFF	Run and stop operation for the air conditionaer units *1: Even when only a single indoor unit connected to the group remote controller is operated, the collective ON/OFF lamp will light up.	○◎ *1	○◎ *1
Operation mode switching	Switches between Cool / Dry / Auto / Fan / Heat. *2:When collective operation is set, the display will show "COLLECTIVE" in the bottom left of the LCD screen. Operation modes vary depending on the air conditioner unit. Auto mode is the City Multi R2 and WR2 series only.	○◎	○ *2
Temperature setting	Sets the temperature for a single group Range of temperature setting Cool/Dry : 19˚C - 30˚C Heat : 17˚C - 28˚C Auto : 19˚C - 28˚C *3:When collective operation is set, the display will show "COLLECTIVE" in the bottom left of the LCD screen.	○◎	○ *3
Fan speed setting	Not available	X	X
Air flow direction setting	Not available	X	X
Timer operation	It is impossible to set schedules by only using this group remote controller. By connecting a program timer, set 48 ON/OFF settings every 30 minutes. By loading only one pattern, it can operate as a weekly schedule. *4: If the Programme timer is connected, you can enable/disable timer operation for each group.	○◎ *4	○
Permit / Prohibit local operation	It can set individually prohibit operation of each local remote control function when it is set the master controller (Start/Stop, Change operation mode, Set temperature, Reset filter). *5: When the local remote controller inactivation command is received from the master system controller, "- CENTRALLY CONTROLLED -" is displayed.	○◎	○◎ *5
Prohibition/permission of specified mode (Cooling prohibited /heating prohibited /cooling-heating prohibited)	It can prohibit the operation for the following modes is prohibited. At cooling prohibited : Cool, Dry, Auto, At heating prohibited : Heat, Auto, At cooling-heating prohibited : Cool, Heat, Dry, Auto	◎	◎
Indoor unit intake temperature	Not available	X	X
Error	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed.	X	□◎
Timer operation	It is impossible to set schedules by only using this group remote controller. By connecting a program timer, set 48 ON/OFF settings every 30 minutes. By loading only one pattern, it can operate as a weekly schedule. *6: If the Programme timer is connected, you can enable/disable timer operation for each group.	*6 ○◎	○
Test run	This operates air conditioner units in test run mode.	X	○
Ventilation equipment operation (individual)	The grouping of LOSSNAY only can be performed. *The operation mode includes [Auto ventilation], [By-pass ventilation] and [Heat exchanger ventilation] .	○◎	○
Ventilation equipment operation (interlocking)	LOSSNAY operates interlocked with the operation of indoor unit. *Can not operate for the air volume/mode. LED only lights at the individual operation of interlocked unit.	○	○
External input/output	Emergency stopping function / Programme timer.	◎	◎
Position to allow connection	Indoor/outdoor transmission line : Allowed Centralized system (indoor/outdoor, etc.) transmission line : Allowed (requiring Power supply unit)	—	—

■ System example

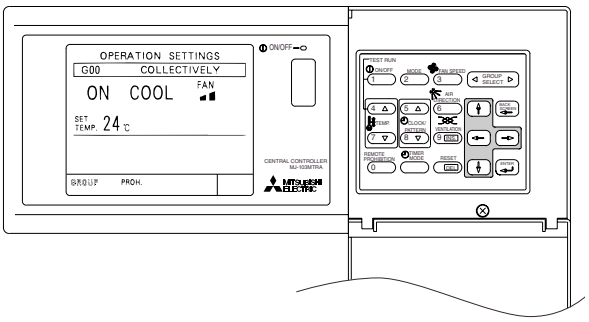


■ External dimension



3-3 Centralized controller

3-3-1 MJ-103MTRA



●This unit has five basic controls; "start/stop", "switch operation mode", "set air flow speed (❋)", "set air flow direction", and "set temperature". The unit is built-in with an exposed part of only about 22mm. The operation settings not only can be performed individually for groups, they can also be performed for all groups in a batch.
(❋) The setting values for air flow speed settings vary depending on the model.

●To cater for the circumstances, operation of local remote control by tenant can be disabled.
It is possible to disable local remote control operation of the tenant side for each of the five basic controls.
You can also nominate times for inactivating local remote control on the schedule screen. (❋) This function prevents excessive cooling over summer and is useful for low energy operation etc.
(❋) Inactivation set in the schedule will be for a batch of operations that includes "start/stop", "switch operation mode", "set temperature" and "filter reset".

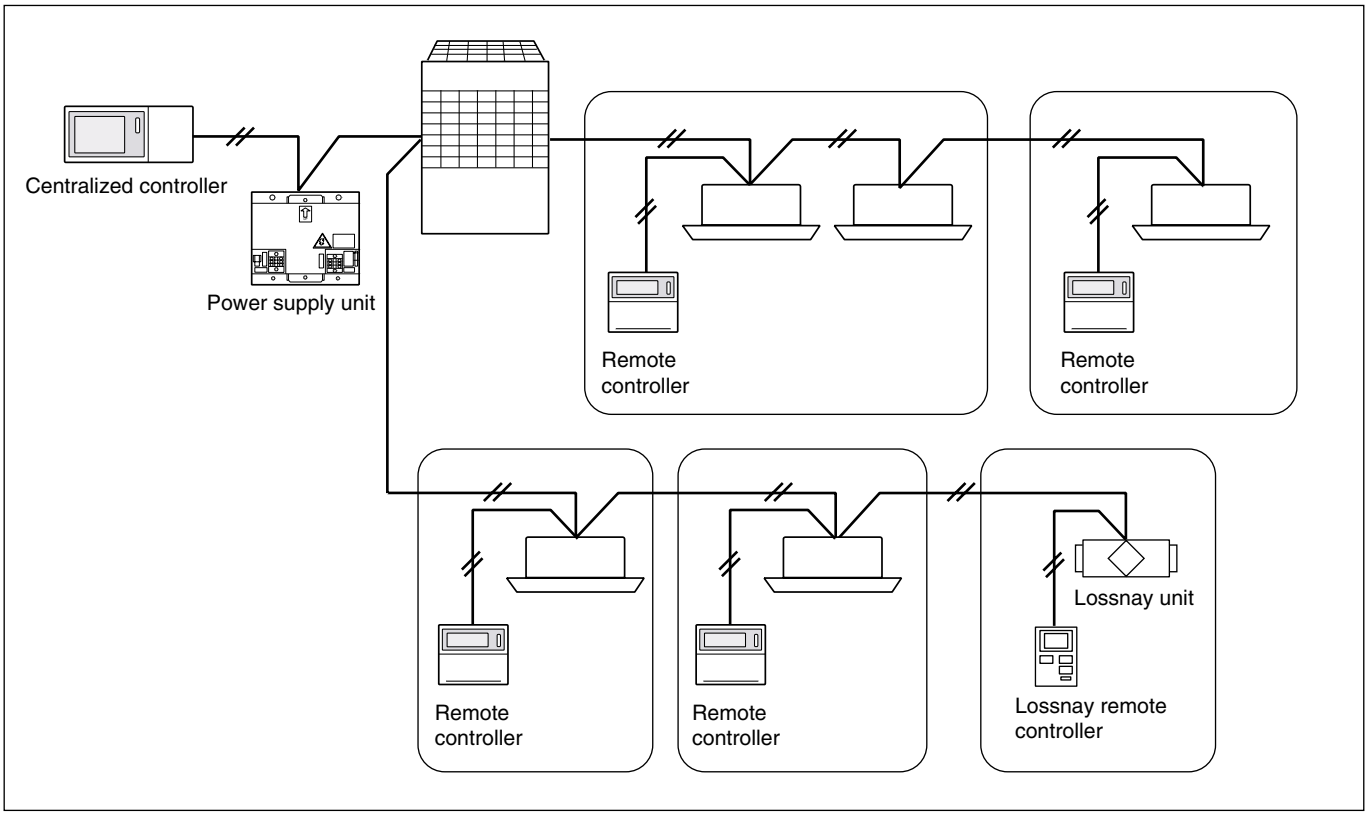
● It is possible to manage an air conditioning schedule for tenants.
Create a week schedule for your tenants by compiling their work start and finish times. You can also set an OFF time to prevent tenants forgetting to turn off the air conditioning when air conditioning time is extended because of overtime work. The schedule allows 3 patterns for each group to meet different weekday requirements.

● It is possible to monitor operation from a screen
You can monitor the operation state of indoor units from the centralized controller's screen. Also, when an error occurs, you can find out the location and detail of the error and you can even call up a log of past errors.

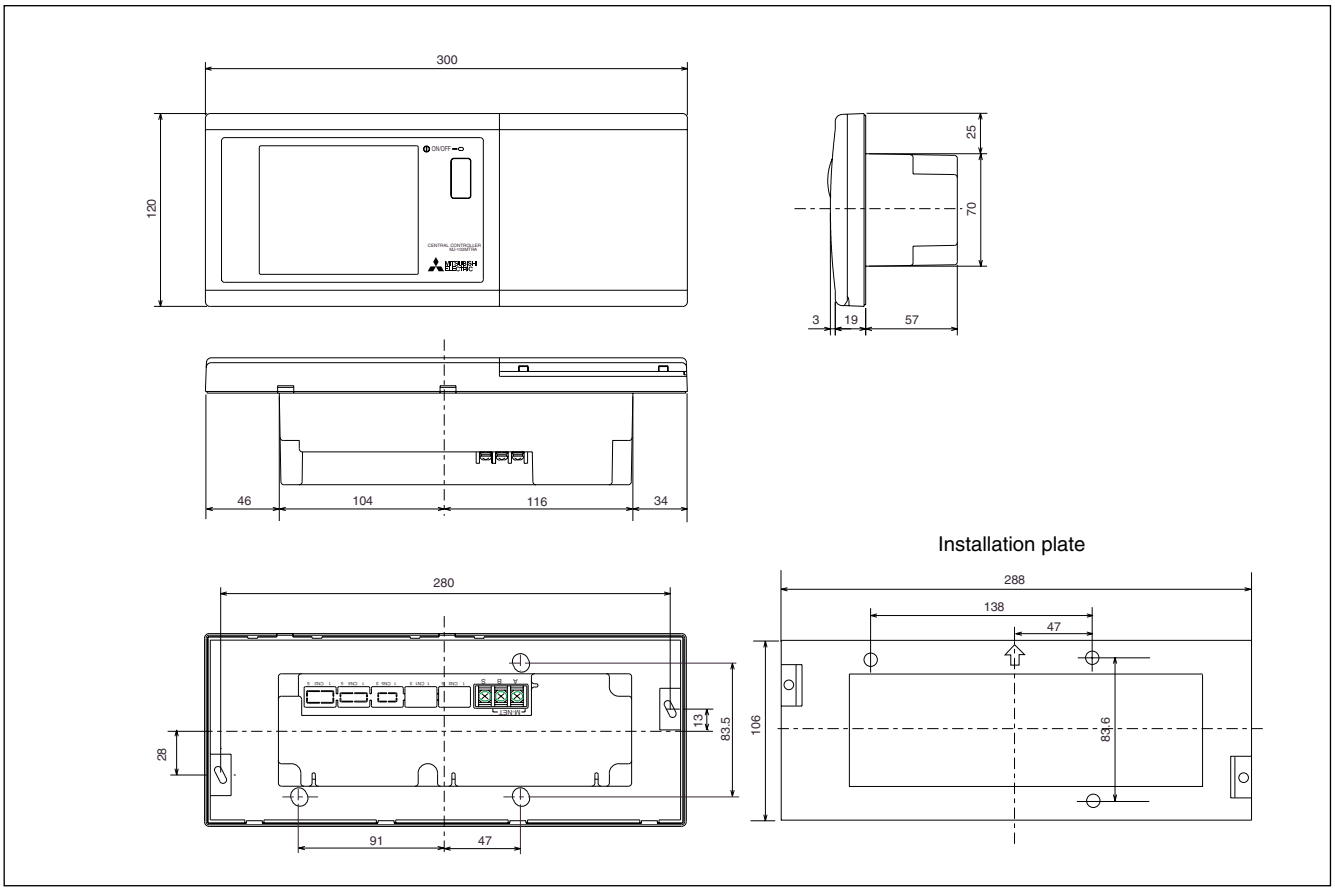
□:Each unit ○:Each group ●:Each block
△:Each floor ◎:Collective X:Not available

Item	Description	Operations	Display
ON/OFF	Run and stop operation for the air conditioner units *1: Even when only a single indoor unit connected to the group remote controller is operated, the collective ON/OFF lamp will light up.	○◎	*1 ○◎
Operation mode switching	Switches between Cool / Dry / Auto / Fan / Heat. (Group of Lossnay unit : automatic ventilation/ vent - heat interchange/ normal ventilation) Operation modes vary depending on the air conditioner unit. Auto mode is the City Multi R2 and WR2 series only.	○◎	○
Temperature setting	Range of temperature setting Cool/Dry : 19˚C - 30˚C Heat : 17˚C - 28˚C Auto : 19˚C - 28˚C	○◎	○
Fan speed setting	Models with 4 air flow speed settings: Hi/Mid-2/Mid-1/Low Models with 2 air flow speed settings: Hi/Low	○◎	○
Air flow direction setting	Air flow direction angles 100% - 80% - 60% - 40%, Swing, *2: Louver cannot be set. Air flow direction settings vary depending on the model.	*2 ○◎	○
Timer operation	For one day, you can set start/stop three times and you can set enable/disable three times. For a week's schedule, you can store three start/stop patterns and one enable/disable pattern. *3: When the timer is set, "Timer enabled" is shown on the operation setting screen of the LCD.	○◎	*3 ○
Permit / Prohibit local operation	Individually prohibit operation of each local remote control function (Start/Stop, Change operation mode, Set temperature, Reset filter). *4: When the local remote controller inactivation command is received from the master system controller, "Disabled" appears in inverted display on the operation setting screen.	○◎	*4 ○
Indoor unit intake temperature	Measures the intake temperature of the indoor unit only when the indoor unit is operating.	X	○
Error	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed. *5: When an error occurs, the LED flashes. The operation monitor screen shows the abnormal unit by flashing it. The error monitor screen shows the abnormal unit address, error code and source of detection. The error log monitor screen shows the time and date, the abnormal unit address, error code and source of detection.	X	*5 □◎
Test run	This operates air conditioner units in test run mode.	○	○
Ventilation equipment	The interlocked system settings can be performed by the master system controller. When setting the interlocked system, you can use the ventilation switch to switch the free plan Losnay settings between "Hi", "Low" and "Stop". When setting a group of only free plan Losnay units, you can switch between "Normal ventilation", "Interchange ventilation" and "Automatic ventilation".	○	○
External input/output	By using accessory cables you can set and monitor the following. Input By level signal: "Batch start/stop", "Batch emergency stop" By pulse signal: "Batch start/stop", "Enable/disable local remote controller" Output "Start/stop", "Error/Normal"	◎	◎

■ System example



■ External dimension



■ External input/output usaque method

1 .External signal input function

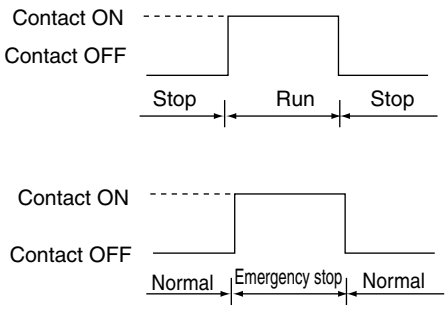
(1) External input

Emergency stop/normal, run/stop and prohibit/enable of local remote controller operation can be controlled for all air conditioners being control by using the no-voltage contact signal from an external source. (Select with the DIP switch settings)

No.	External signal input function	DIP switch		Remarks
		No.6	No.7	
1	Do not use external input signal (factory setting)	OFF	OFF	————
2	Execute emergency stop/normal with level signal	OFF	ON	The local remote controller ON/OFF operations, and the controller ON/OFF operation and prohibit / enable change operations will be prohibited during emergency stop.
3	Perform ON/OFF with level signal	ON	OFF	The local remote controller ON/OFF operations, and the controller ON/OFF operations and prohibit/enable change operations will be prohibited.
4	Perform ON/OFF, prohibit/enable with pulse signals.	ON	ON	Set the pulse width while the contact is ON to 0.5 to 1sec.

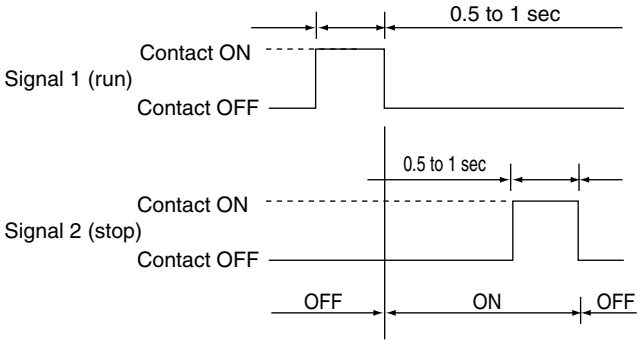
(2) Level signal and pulse signal

(A) Level signal



(B) Pulse signal

(Example) for ON/OFF



* The prohibit/enable input is the same.

(3)External input specifications

CN3	Lead wire	Emergency stop/normal level signal	ON/OFF level signal	ON/OFF, prohibit/enable pulse signal
No.1	Orange	Emergency stop/normal input	ON/OFF input	ON input
No.2	Yellow	Not used	Not used	OFF input
No.3	Blue	Not used	Not used	Local remote controller operation prohibit input
No.4	Violet	Not used	Not used	Local remote controller operation enable input
No.5	Green	Common (0V)		

(A) For level signal

① When the emergency stop/normal signal is selected, the status will change from normal to emergency stop when the external input signal contact changes from OFF to ON, and will change from emergency stop to normal when the contact changes from ON to OFF.

② When the ON/OFF signal is selected, the status will change from OFF to ON when the external input signal contact changes from OFF to ON, and will change from ON to OFF when the contact changes from ON to OFF.

(B) For pulse signal

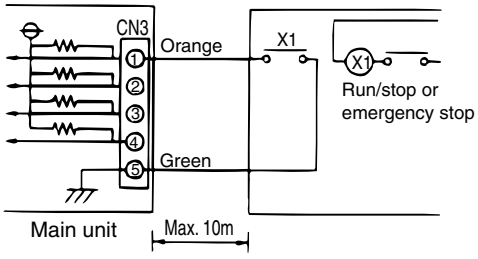
① Even if the ON signal is input during ON, the status will remain at ON state.

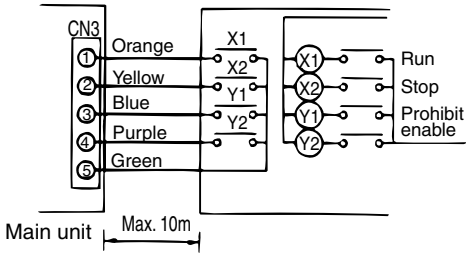
② If the local remote controller is prohibited, the ON/OFF operation mode and temperature setting operations by the local remote controller will be prohibited.

③ Set the pulse width (contact ON time) to 0.5 to 1 sec.

(4)Recommended circuit example

(A) For level signal





① The no-voltage contact and extension cable, etc., must be prepared separately at the site.
② The connection cable can be extended up to 10m. (Use a 0.3mm^2 or lager wire.)
③ Cut the extra cable near the connector, and securely insulate the cut section with tape, etc.

2. External signal output function

(1) External output

When one or more air conditioners are running, the " ON" signal will be output, and if an malfunction occurs in one or more air conditioners, the " Malfunction" signal will be output.

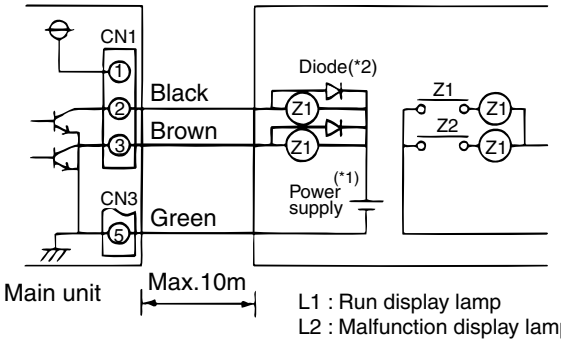
(2)External output specifications

CN1	Lead wire	Details of each terminal
No.1	Red	Common (DC5V)
No.2	Black	ON/OFF
No.3	Brown	Malfunction/normal

① " ON" signal and " Malfunction" signal will both be output.

(3)Recommended circuit example

To drive a relay

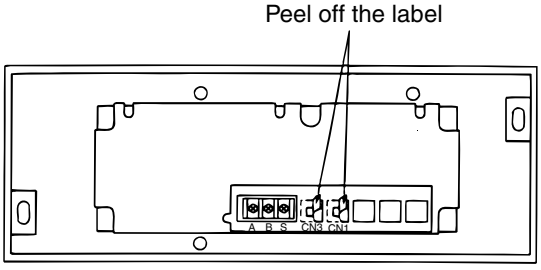


Use Z1 and Z2 relays having the following specifications.
Operation coil
Rated voltage :DC 12V,DC24V
Power Consumption : 0.9W or less
(*1)Prepare a power supply separately according to the relay being used.(DC 12V or DC24V)
(*2)Always insert a diode on both ends of the relay coil.

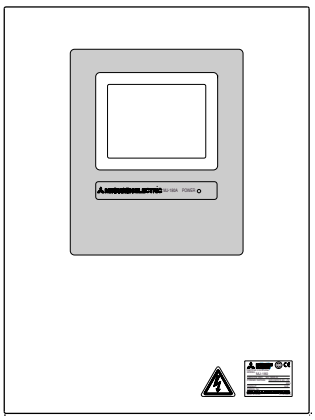
① Each element will turn on while ON operation and when a malfunction.
② The connection cable can be extended up to 10m.
③ The relays, lamps, diodes and extension cables, etc., must be prepared separately at the site.

⚠ CAUTION

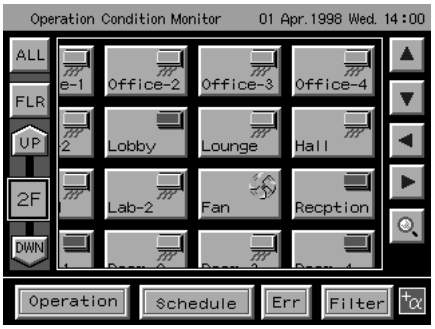
When connecting the external input/output cables to connector CN3 and CN1 on the controller, Peel off the label on the controller connector section.



3-3-2 MJ-180A

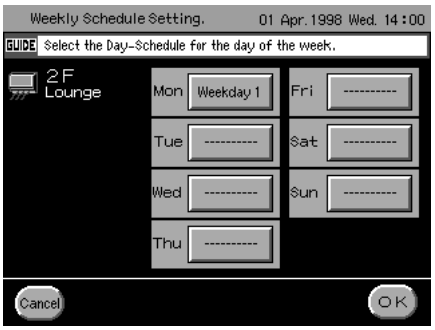


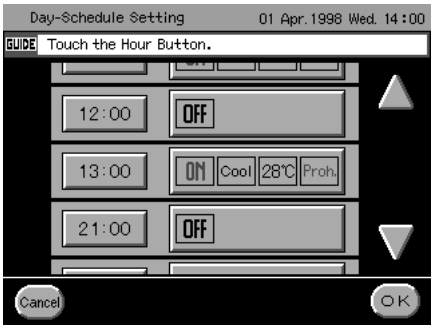
● It is possible to operate simply and clear display by graphic user interface (GUI).



● It is possible to set a schedule for each tenant.
You can set 6 ON/OFF cycles to a precision of one minute and you can have different settings for different weekdays, thus giving you the ability to manage a schedule for one week. After a schedule is set, this setting can be used to automatically start/stop the air conditioner units by commands sent from a man-machine interface control (※). A schedule setting that specifies 50 holidays is also possible. (※: Control table display part)

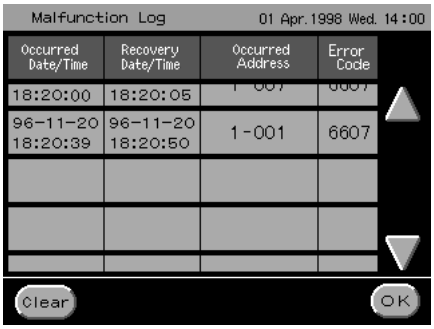
Weekly schedule setting display



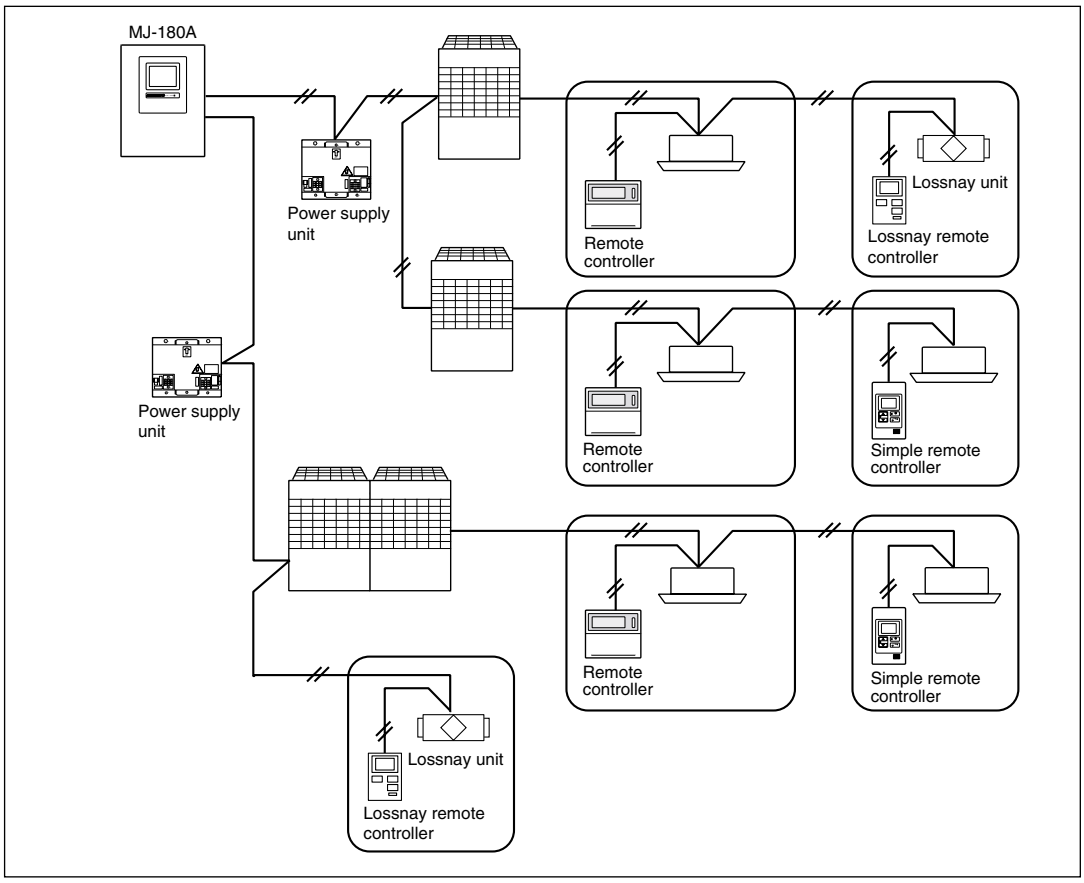


Exception-day schedule display

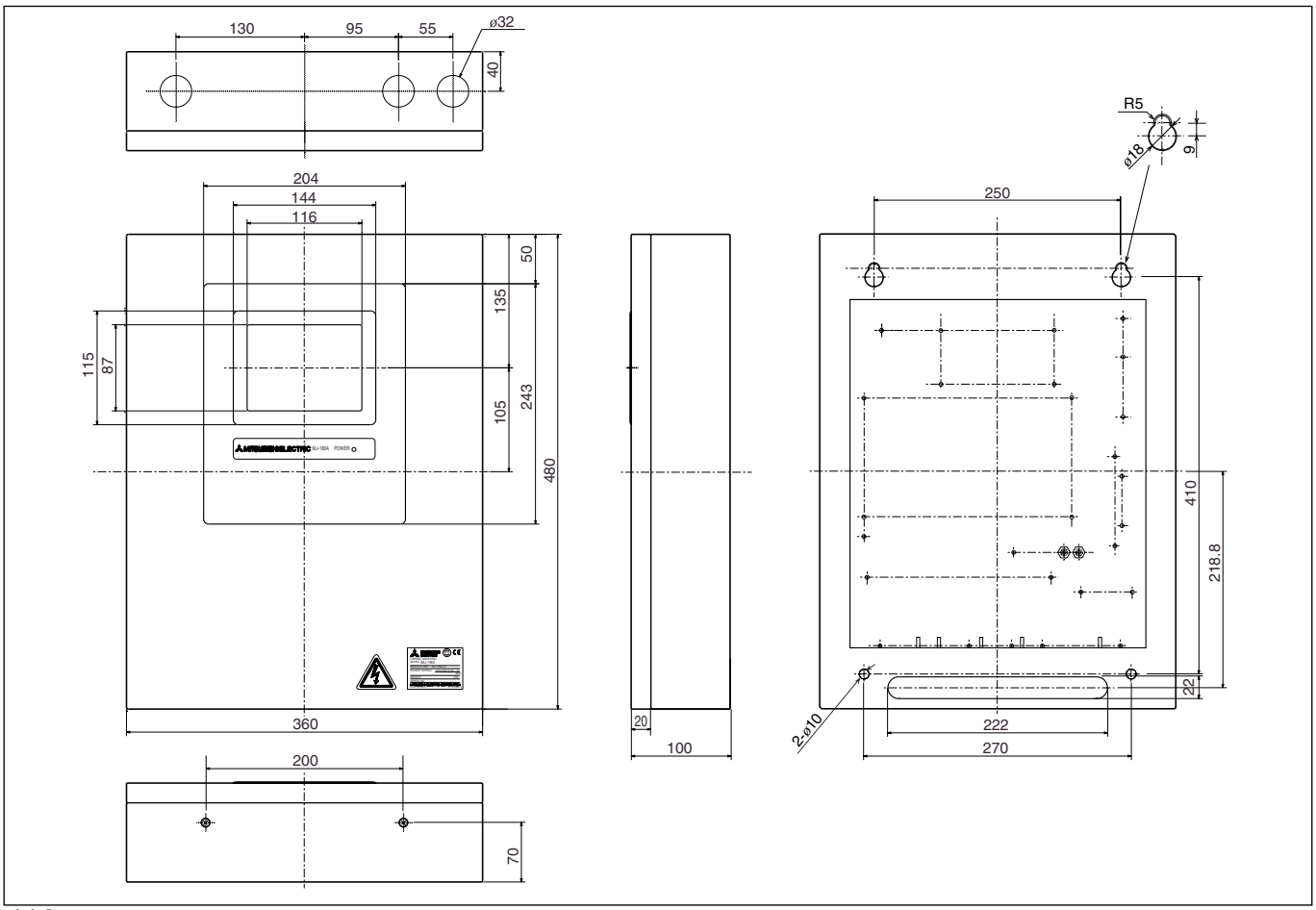
● Quick notification of errors by an easy to understand screen display
Because all the screen commands for air conditioner unit control are included in the graphic user interface, the operations are simple and there will be no confusing moments. Furthermore, a smooth maintenance service can be achieved from support such as a simple icon mark being displayed when faults occur in the air conditioner units and the ability to display the currently occurring error and a log of past errors.



■ System example



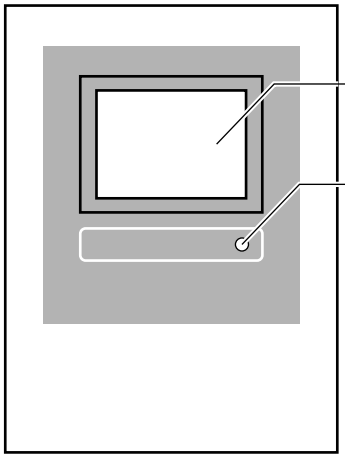
■ External dimension



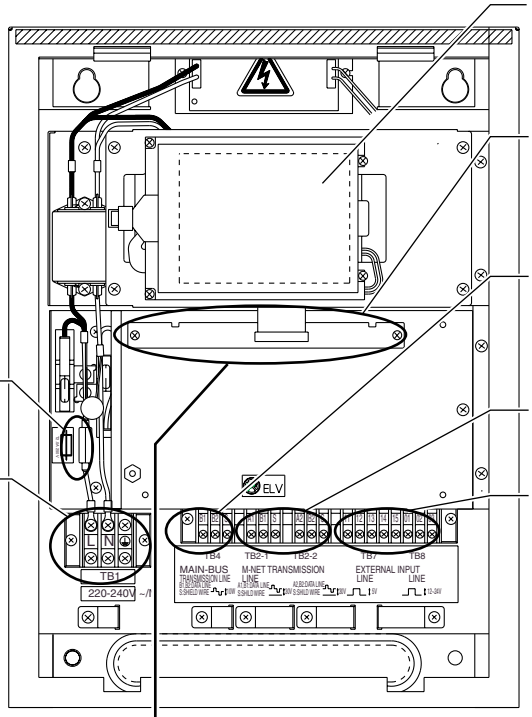
■ Functions

		Function	Details
Number of control units		Indoor units, LOSSNAY"	Up to 100 units can be connected with the standard configuration. This can be increased to 200 units by expanding the GWU-50A to two units.
		Number of indoor units per group	1 to 16 (The same applies for independent LOSSNAY (OA processing unit). However, indoor units and LOSSNAY cannot be used in the same group.)
		Number of remote-controllers per group	0 to 2
		System controllers per group	0 to 4. (However, ensure that the total number of remote controllers and system controllers in each group is four or less.)
Normal functions	Operations	ON/OFF	The system can be operated and stopped for the whole building, an entire floor or by group. (Bulk operations can also be performed for only indoor units or LOSSNAYs)
		Temperature setting	Room temperature can be set for the whole building, and entire floor or by group. Permissible temperature range. During cooling (dry) 19 °C to 30 °C. During heating 17 °C to 28 °C. During automatic operations 19 °C to 28 °C.
		Operation modes	Mode switching is possible between Cool, Dry, fan, Heat and Auto for the whole building, an entire floor or by group. (Switching between Bypass, Heat recovery and Auto ventilation is possible with LOSSNAY groups.)
		Air direction setting	Possible to switch between four vertical stages or swing by group.
		Fan speed	Possible to switch between four levels by group. (Two levels depending on the type)
		Prohibit local remote controller	It is possible to prohibit and permit the specific functions of remote controllers for the whole building, an entire floor or by group (The prohibiting setting is performed on a different screen. The only operations that can be prohibited are ON/OFF, Operation mode, Temperature, Filter sign reset.)
		Filter sign reset	The filter sign display can be reset for the whole building, an entire floor or by group."
		External signal input interface	It is possible set the emergency stop, ON/OFF and prohibit/permit all together from an external source.
	Monitoring	ON/OFF (bulk)	It is possible to display the ON/OFF status for an entire floor (all on, all off, some on/some off)
		Operating status (by floor)	It is possible to display the ON/OFF status, the schedule valid/invalid status and the malfunction/filter sign status graphically by group for each floor.
		Operating status (by group)	It is possible to display the ON/OFF status, the temperature settings, the operation mode, the air direction, the fan speed, the remote control prohibited/permits status and the filter sign status by group.
		Error (bulk)	It is possible to display the unit for which an error has been triggered from amongst all units.
		Filter sign (bulk)	It is possible to display the unit for which a filter sign has been triggered from amongst all units.
	Schedule	OFF timer	Switches the units off at the time preset for that day for the whole building, an entire floor or by group.
		Weekly schedule	It is possible to set the weekly operating schedule for the whole building, an entire floor or by group. It is possible to set the schedule pattern (daily schedule) allocated every Sunday as follows: #Twelve different schedule patterns for the entire system. #Six different settings per day for ON/OFF, temperature setting, operating mode and remote control prohibit/permit with each schedule pattern.
		Exception-day schedule	It is possible to set fifty days of exceptional schedule operations (national holidays, etc.) for one year in units of the whole building, an entire floor and groups. The schedule pattern (day schedule) for assigning each date is the same schedule pattern as assigned to the weekly schedule.
Maintenance functions	Settings	Current time setting	It is possible to set the current date and time.
		Display layout setting	It is possible to set the display layout and group name for the group button on each floor.
		Touch panel adjustment	Adjusts the touch panel.
		Prohibit items setting	It is possible to prohibit operations from remote controllers for the whole building, an entire floor or by group (the items that can be prohibited are ON/OFF, Operation mode, Temperature setting and Filter sign reset.)
	Monitoring	Monitoring past malfunctions	Displays a maximum of 200 past malfunctions (200 from the most recent)
	System settings	Connection information setting	Registers indoor units, LOSSNAYs, remote controllers and slave system controllers.
Others	Data backup	Current time back up	The current date and time is backed up in the internal condenser for a period of approximately one week after the mains power has been cut off. (The power supply to the main system must be switched on continuously for 24 hours or more to recharge the internal condenser)
		Schedule	Saves the contents of the pre-set schedule even when the mains power is switched off.
		Display layout	Saves the contents of the pre-set display layout even when the mains power is switched off.
		Operations prohibited	Saves the contents of the operations prohibited item even when the mains power is switched off.
		Malfunction log	Saves the contents of the Malfunction log even when the mains power is switched off.
		Connection information	Saves the contents of the pre-set connection information even when the mains power is switched off.
	External input/output	External input	It is possible to set the emergency stop/normal operations mode, the ON/OFF and the remote control prohibit/permit with a no-voltage contact signal input.
		External output	The “ON” signal is output when one or more of the units being controlled are operating. The “Malfunction” signal is output when a malfunction occurs in one or more of the units being controlled.

■ Part names



Front view



Display screen.
Displays the operations screen

Display board.
Fitted with the various lamps and buzzers, etc.

Expansion gateway terminal.
The expansion gateway unit (GWU-50A) is connected when 101 or more units are to be connected.

Fuse

M-NET connection terminal.
Connected to each unit

Power supply connection terminal.
Connected to an AC220 to 240V power supply

External input/output terminal.
The terminal for external input and output

Internal configuration diagram

Buzzer.
Issues a sound when the screen is touched

Alarm lamp.
Illuminated when a malfunction occurs in the main unit or in units connected to it.

Display board

Power supply lamp.
Illuminated when the power supply is switched on.

Dip-switches for setting the external input function.
Sets the external input function.

Operating lamp
This lamp is illuminated when even a single unit is operating.

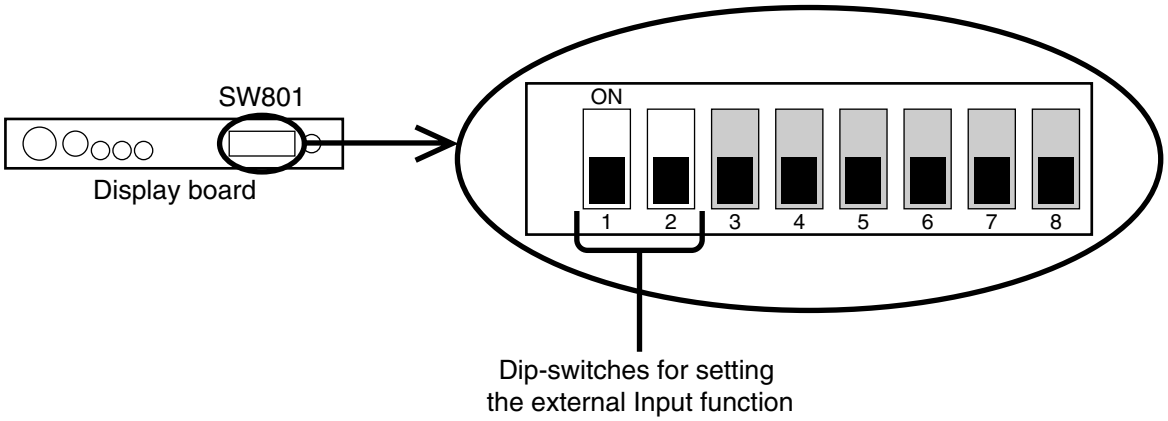
Communicating lamp.
Blinks when the main unit is communicating with another unit.

Contrast adjustment knob.
Adjusts the screen contrast.

NOTE: ● The settings for the display board have already been made by a specialist. The customer must not amend these settings.

■ External input/output function settings

- It is possible to operate the ON/OFF settings, the monitoring and error monitoring functions from another system by the use of the external input/output terminals.
- Set the dip-switches on the main unit's display board in order to use the external input/output terminals. The function will be activated approximately five seconds after the settings have been made.



1. External input terminal

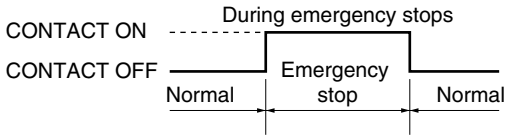
(1) The external input function and its set-up

- The external input function is activated by setting the number 1 and 2 dip-switches on or off.

No.	Dip-switch		Function of external input signal	NOTE
	No.1	No.2		
1	OFF ON	OFF OFF	External input signal not used (factory setting)	Prohibits the external input function. (No operations performed when a signal arrives.)
2	OFF	ON	Perform emergency stop with level signal	Stops all units and prohibits the remote control when the level signal is input. (Used to stop the air-conditioning with a signal from the fire alarm.)
3	ON	ON	Perform ON/OFF operation, prohibit/permit operation with pulse signal	Switches all units ON/OFF and prohibits or permits remote control with the pulse signal.

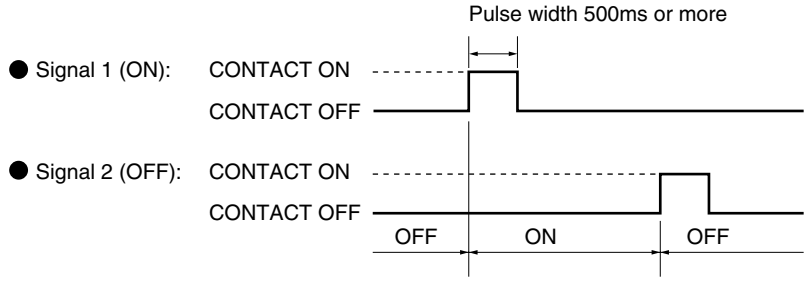
(2) Level signals and pulse signals

① Level signals



② Pulse signals

Example: ON/OFF



(3) Connecting to the external input terminal

TB7 terminal number	Emergency stop/normal level signal	ON/OFF prohibit/permit
11	Emergency stop/normal input	ON input
12	Not used	OFF input
13	Not used	Local remote controller prohibit input
14	Not used	Local remote controller permit input
15		Common (OV)

NOTE:
- In the case of level signals
  - ① The ON/OFF settings for the MJ-180A and the remote controllers are usually prohibited when the emergency stop level is set at [contact on]. (The operations mode, the temperature settings and the filter reset functions are also prohibited for the main unit.)
- In the case of pulse signals
  - ① Operations will continue even when an operations signal is input when the units are running. (The same applies for OFF, PROHIBIT and PERMIT.)
  - ② Of the ON/OFF, operations mode, temperature settings and filter sign reset functions, only the items prohibited with the main unit settings will be prohibited when remote controls are prohibited with the pulse signal. (All functions are set at [PROHIBIT] when shipped from the factory.) Refer to the instruction book (general operations) for details on setting the prohibited items.
  - ③ If ON and OFF have been input at the same time, the unit stops, and if Prohibited/Permitted are input at the same time, Permitted is set.

2. External output terminal

(1) Function of external output

① ON/OFF: The [ON] signal is output when one or more of the units are in operation.
② Malfunction/Normal: The [Malfunction] signal is output when an malfunction occurs with one or more of the units.

(2) Connecting to the external output terminal

TB8 terminal number	Details of each terminal
1	ON/OFF
2	Malfunction/Normal
3	Common (OV)

3. External input/output line

Wire the external input cables to terminals 11, 12, 13, 14, and 15 on the TB7 (as shown in Fig. 5.5).
Wire the external output cables to terminals 01, 02 and 03 on the TB8 (as shown in Fig. 5-5).
Refer to the 6. External input/output functions for the specification of each terminal.

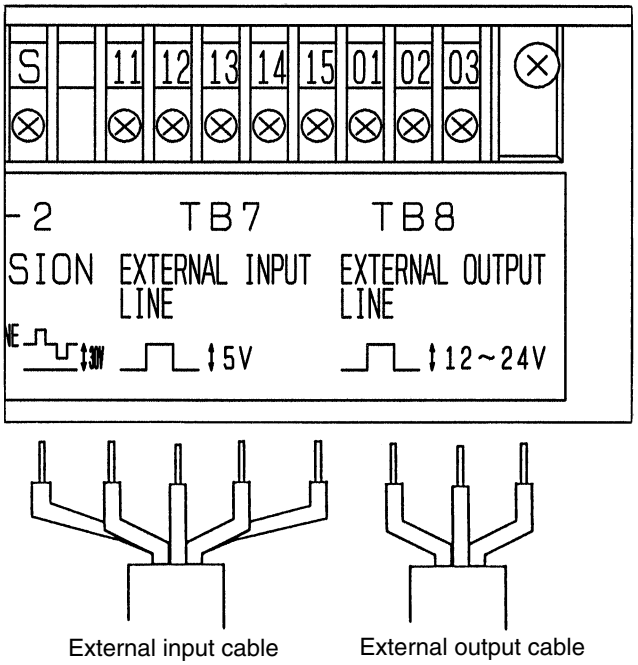
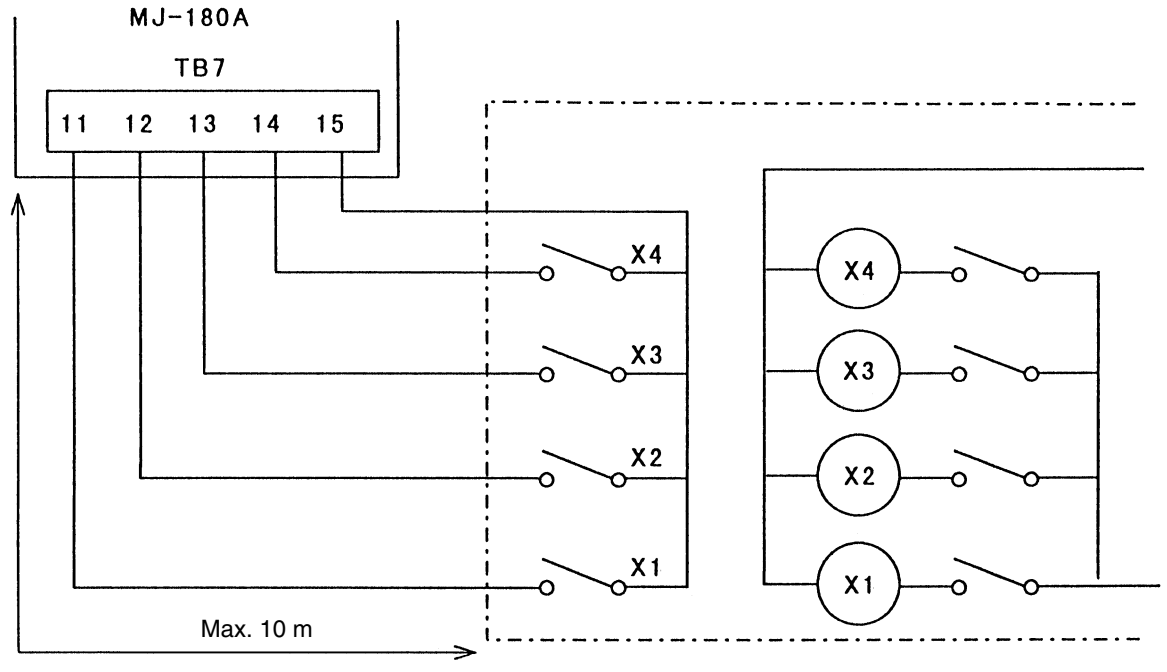


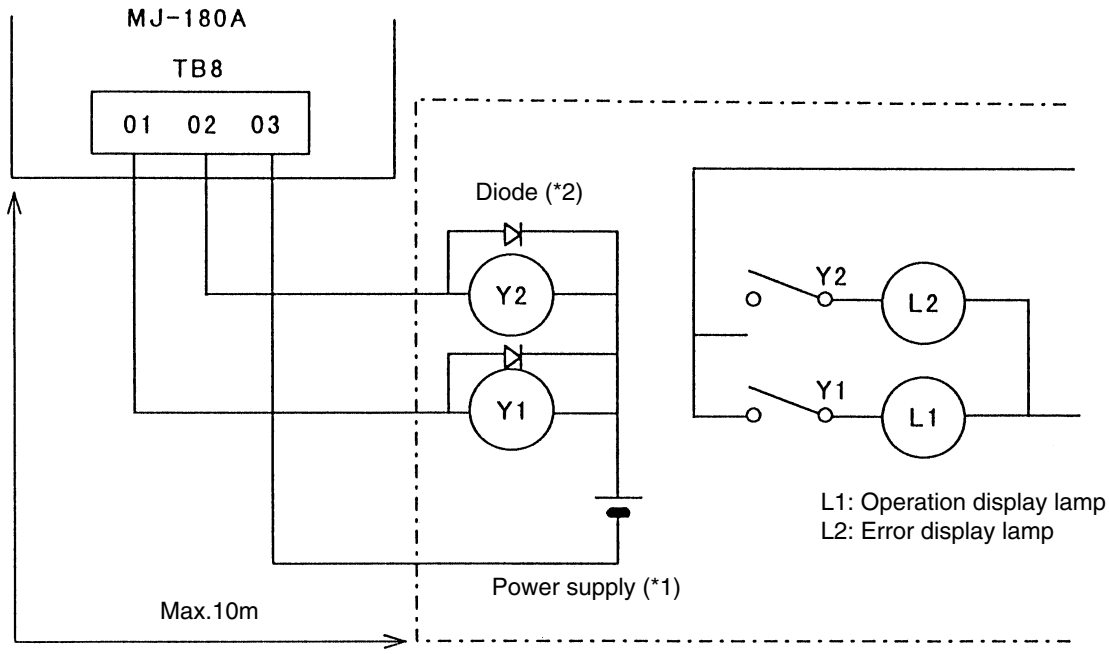
Fig. 5-5

(1) Recommended circuitry examples

① External input circuit



② External output circuit



Relays Y1 and Y2 should follow the specifications below:
Voltage: DC12V/DC24V
Power consumption: 0.9W or below
(*1) Prepare a separate power supply according to the relay being used (DC12V or DC24V).
(*2) Always insert a diode.

Fig. 5-7

NOTE

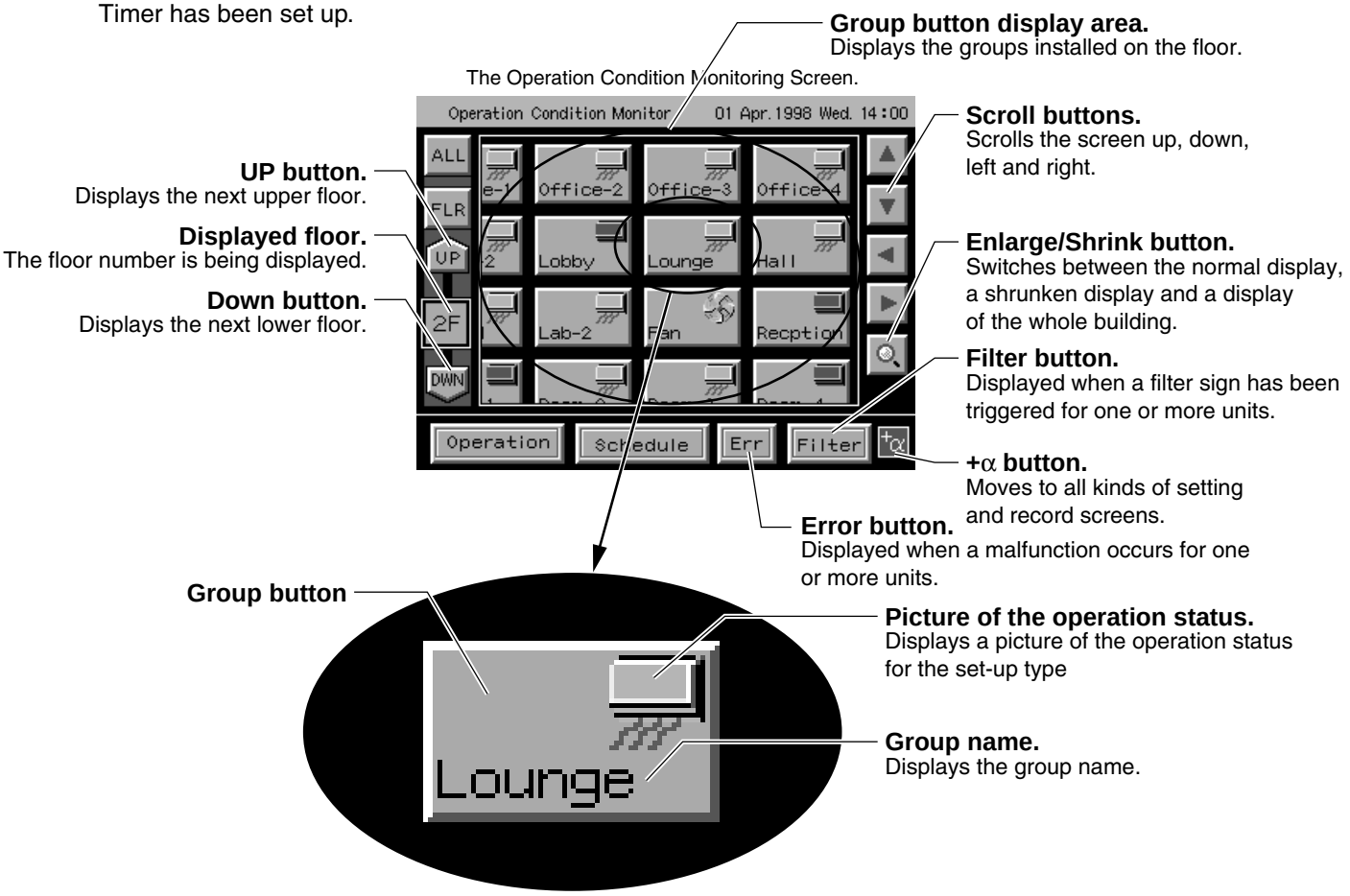
After connecting each cable, be sure to secure them with the cable fixture.

■ Functions usually used

1. Operation condition monitor

(1) Monitoring by group

- The condition of air conditioner (indoor unit) or Lossnay (OA processing unit) can be monitored by group to provide any display during ON/OFF/Malfunction Status/Filter sign occurrence.
- A schedule mark will be attached to the group button when weekly schedule, exception-day schedule or OFF Timer has been set up.



NOTE:

- The pictures for the operation status are displayed as follows.

Air-conditioner	ON	ON (schedule available)	ON (OFF timer available)
	OFF	OFF (schedule available)	OFF (OFF timer available)
LOSSNAY	ON	ON (schedule available)	ON (OFF timer available)
	OFF	OFF (schedule available)	OFF (OFF timer available)

- An X mark or F mark lights up on the group button if a malfunction or filter sign occurs.

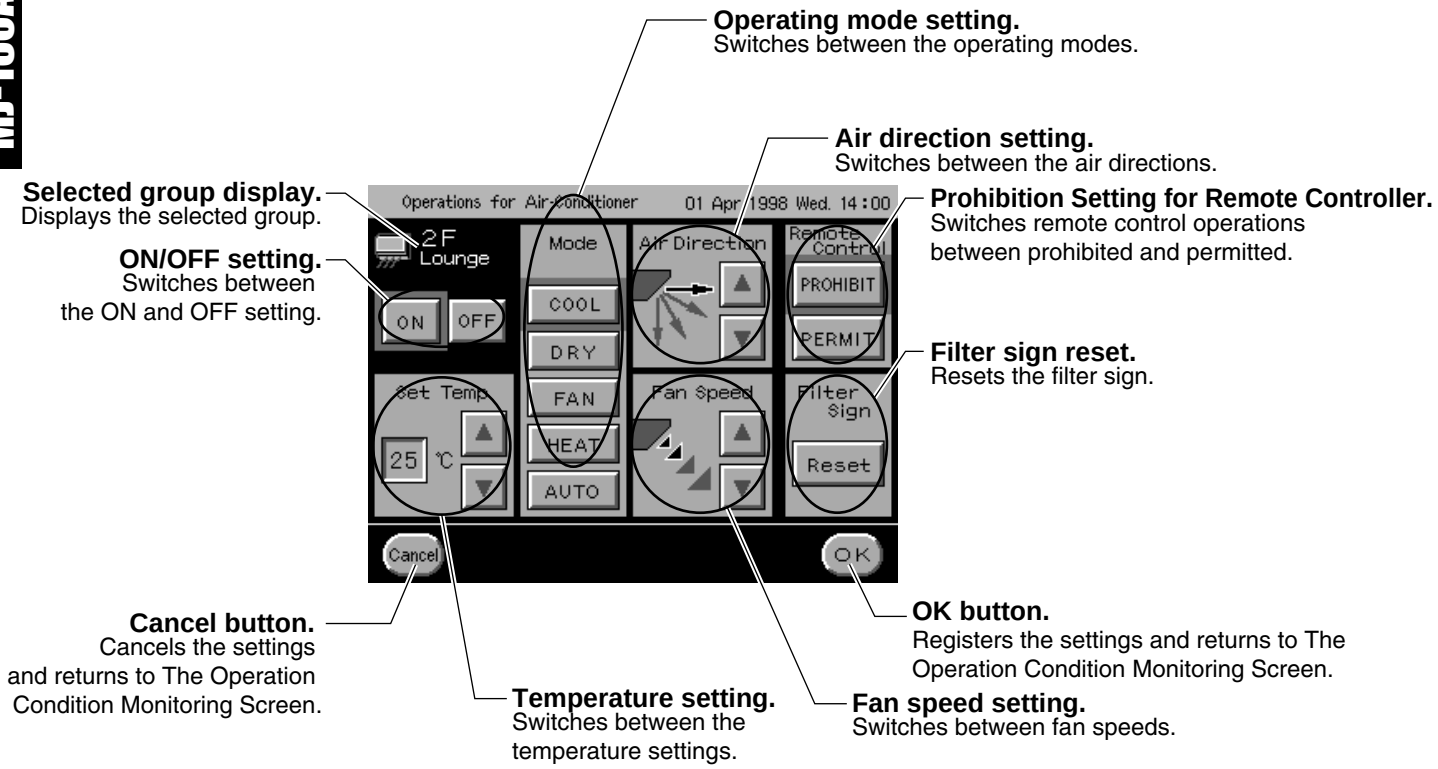
Malfunction triggered Filter sign triggered

NOTE:

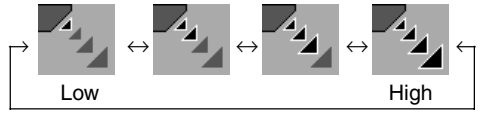
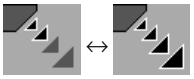
- The backlight will be extinguished and the screen will return to the operation condition monitoring screen when no operation is made on normal operation screens for a period of ten minutes. (During a malfunction, the backlight does not go off.) Touch the screen once to re-illuminate the backlight in this case.
- If the external input function is used, and ON/OFF operation or manual operation Prohibited/Permitted is input from an external system, the ON/OFF operation or Prohibited/Permitted setting applies to all units. (Please refer to p. 5 of the Instruction Book, “Initial Settings and Amending Settings”.)

(2) Single group operations (Air-conditioning groups)

- Touch the OK button after the operation settings have been made to switch across to the operations status for the selected group.
- If you desire to cancel the settings (Contents of Settings), touch the Cancel button.



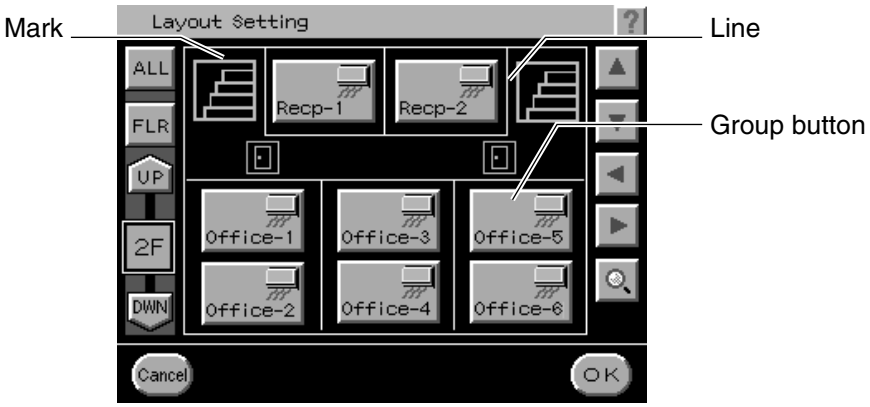
Function	Operations
ON/OFF setting	Touch either the ON or OFF buttons to switch the groups ON and OFF.
Temperature setting	Touch the ▲ and ▼ buttons to set the temperature setting. COOL/DRY operations : 19 to 30 °C HEAT operations : 17 to 28 °C AUTO operations : 19 to 28 °C (Not set during FAN operations)
Operating mode setting	Touch any of the buttons between COOL and AUTO to switch between operating modes for the selected group. Selection of the AUTO button is not possible for models not equipped with the automatic mode.
Air direction setting	Touch the ▲ and ▼ buttons to set the air direction for the selected group. Vertical ↔ ↔ ↔ Horizontal ↔ Swing (The air direction area will not be displayed for models not equipped with an air direction switching function. The swing will not be displayed for models not equipped with a swing function.)

Function	Operations
Fan speed setting	Touch the ▲ and ▼ buttons to set the fan speed for the selected group. Four-level fan speed types:  Two-level fan speed types:  The fan speed setting area will not be displayed for models not equipped with a fan speed switching function.
Prohibition Setting For Remote Controller	Touch the PROHIBIT or PERMIT buttons to prohibit or permit specific function of the remote controller for the selected group. The items that can be prohibited when PROHIBIT has been selected (ON/OFF, Operating mode, Temperature and Filter sign reset) are set on the screen for selecting the required units.
Filter sign reset	Touch the Reset button to reset the filter sign for the selected group. (This field will be displayed darkly when a filter sign has not been triggered, and it will not be possible to select the Reset button.)

NOTE:
- The items that cannot be operated will be displayed in a darker color, and it will not be possible to operate the operation buttons.
  - ① If touch the OFF button on the ON/OFF settings, the [Temperature Settings], [Operation Mode Settings], [Air Direction Settings], [Fan speed Settings] and [Filter sign reset] cannot be set.
  - ② If touch the FAN button on the operation mode settings, the [Temperature Settings] cannot be set.
  - ③ AUTO button cannot be selected with indoor unit models without the automatic mode.
  - ④ If no Prohibited item is set, the PROHIBIT button cannot be selected.
- The air direction switching area will not be displayed for indoor unit models not equipped with an air direction switching function.
- The fan speed switching area will not be displayed for indoor unit models not equipped with a fan speed switching function.
- [Swing] settings are not possible with indoor unit models not equipped with a swing function.

2. Layout modifications

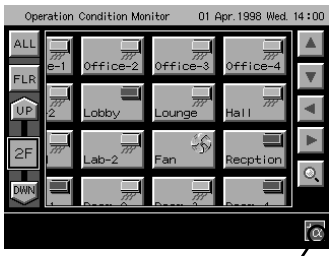
- This screen is used to amend the position, size and names of the group buttons, marks and lines.
- It is possible to create an operation screen similar to the one shown below by setting up a layout.



NOTE: ● If you have added a new group, deleted a group or changed floors, the layout is initialized, so please set this screen once more.

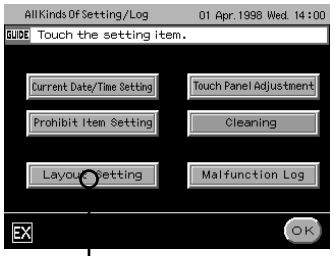
(1) Moving across to the layout setting screen

The Operation Condition Monitoring Screen.



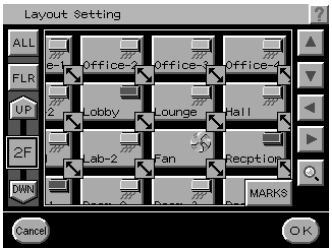
① Touch the +α button at the bottom right-hand corner of The Operation Condition Monitoring Screen to move across to The All Kinds Of Setting / Previous Record Screen.

The All Kinds Of Setting / Previous Record Screen.



② Touch the Layout Setting button to move across to The Layout Setting Screen.

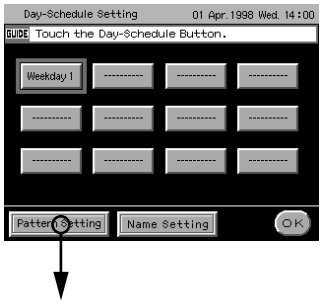
The Layout Setting Screen.



(2) Setting up the operation time of the day-schedule

- Set the time that the schedule is to be operated.
- Schedules can be operated a maximum of six timers per day.

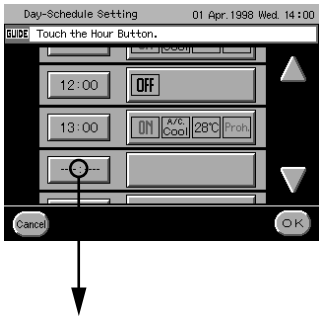
The Day-schedule Setting Screen.



① Touch the day-schedule button (Weekday 1 , for example) for which the schedule contents are to be set.

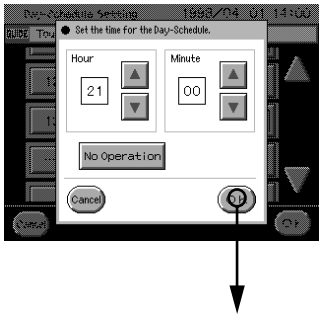
② Touch the Pattern Setting button to move across to The Schedule Pattern Setting Screen.

The Schedule Pattern Setting Screen.



③ Touch the time button (----:----) that is to be set up or amended to move across to The Time Setting Screen.

The Time Setting Screen.

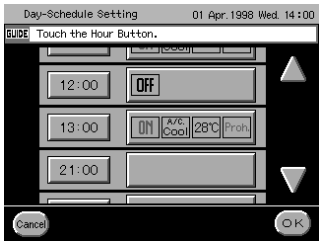


④ Use the ▲ and ▼ buttons to set the time of schedule execution.

⑤ Touch the OK button once the time has been set to return to The Schedule Pattern Setting Screen.

If the schedule pattern is to be deleted, touch the No Operation button and then touch the OK button.

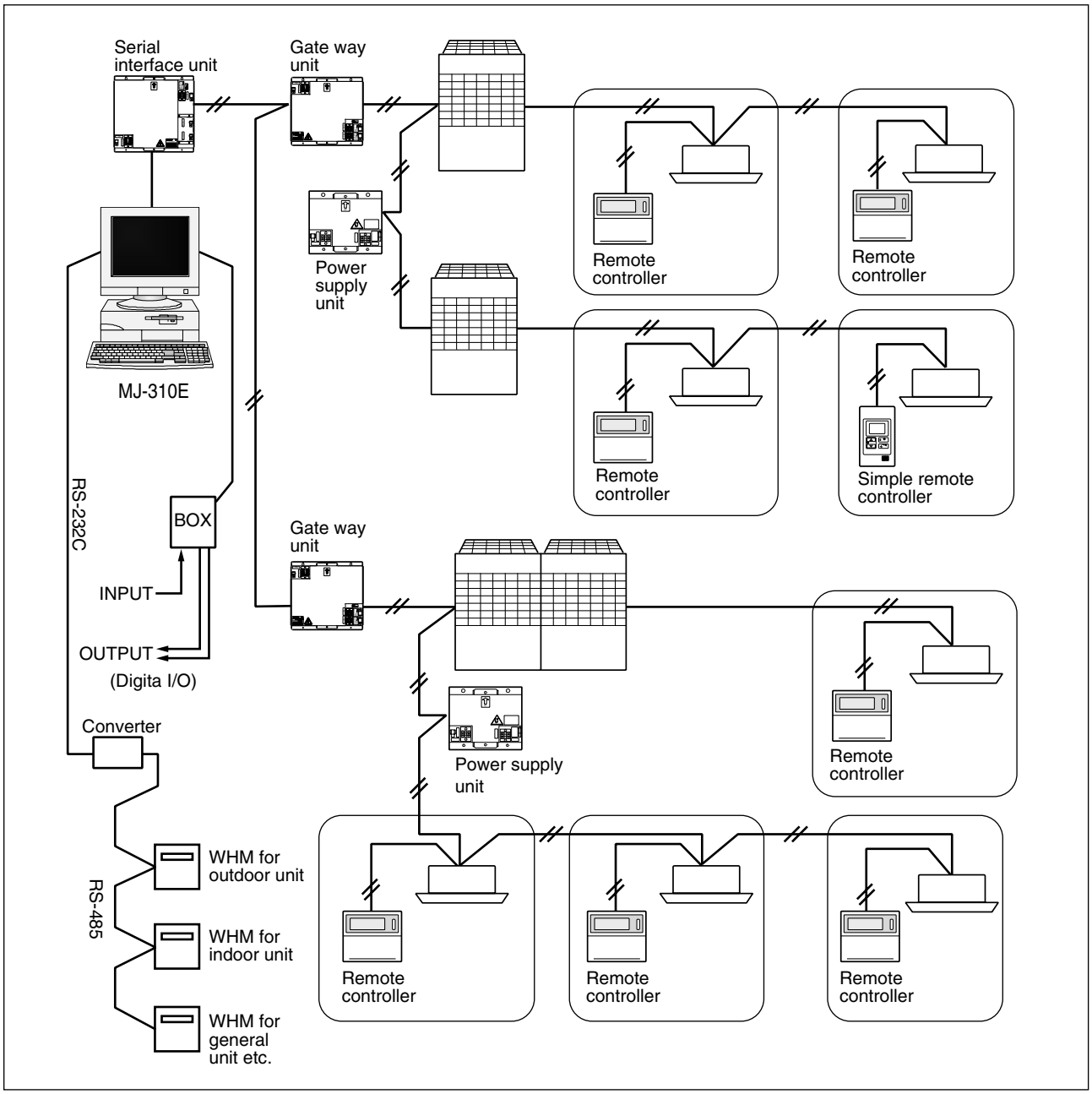
The Schedule Pattern Setting Screen.



NOTE: ● Touch the OK button after selecting No Operation on The Time Setting Screen to delete the previously set time and the contents of the schedule.

3-3-3 MJ-310E/MB-300

Example



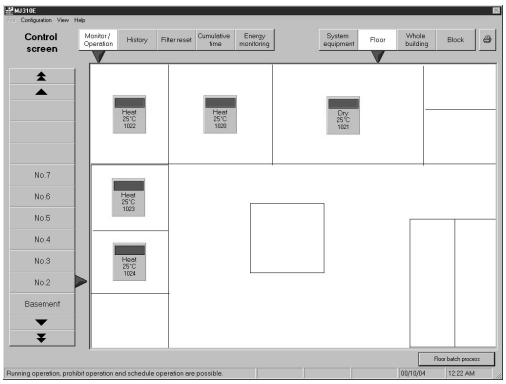
- The air conditioning equipment of a large scale building is operated / set / monitored through the floor indication on the displays and and the manipulation of the mouse.
- The air conditioning charge can be calculated and the maintenance timing can be estimated.
- The ON/OFF setting in a unit of one minute can be performed and a different setting can be adapted to each calendar day, thus allowing to set weekly schedules. In addition, as an individual holiday and any specific day can be set, the annual schedule control per tenant can be prepared.
- As the prohibited items of Local remote controller operation for each air conditioning unit can be divided by the most significant man-machine, the integrated control of each room can be performed from the building administration room or the like.

1. MJ-310E

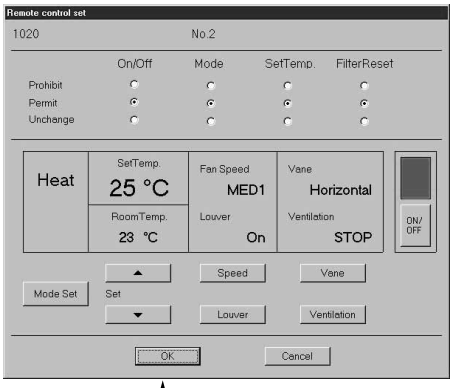
(1)Recommended equipment for use

Item		Specifications	Remarks
PC	CPU	Pentium Ⅲ 500Mhz or more	Recommended
	Memory	128MB or more	Designated
	HDD capacity	6GB or more	Recommended
	Extended board	PCI 1slot or more	At use of input/output
	Serial port	2ports or more	At connection with WHM (At no connection with WHM : 1port or more)
	OS	WindowsNT4.0 Workstation Service Pack6A English Version	Designated
Monitor	Resolution	1024 X 768 or more	Designated
	Color display	65536 colors display possible	Designated

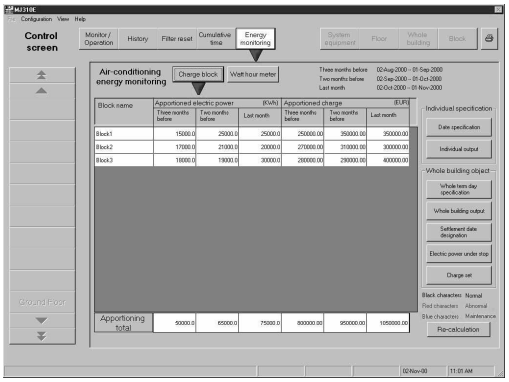
(2)Screen composition



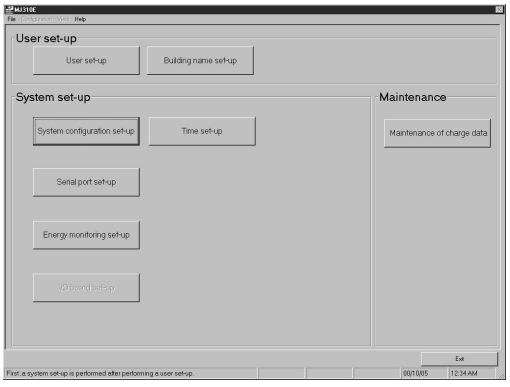
← Control screen
Display in a unit of group, floor, block and building can be provided. Operation manipulation, schedule setting, operating hour display, filter sign display, and air conditioning charge display are also possible.



Remote controller operation screen

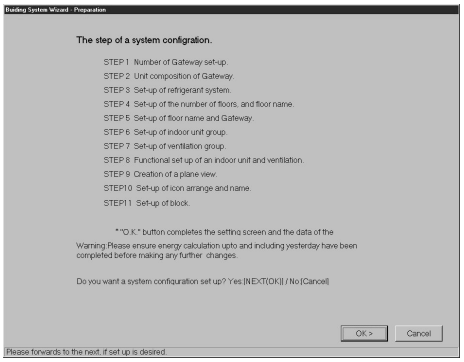


← Air conditioning charge display screen



← Initial screen
With this screen, the function to be used or not to be used can be determined and systems can be set. This includes the setting of system composition, charging system, time setting, and maintenance of charge data for example.

Screen to set system composition →


Building System Wizard - Preparation
The step of a system configration.
STEP 1 Number of Gateway set-up.
STEP 2 Unit composition of Gateway.
STEP 3 Set-up of refrigerant system.
STEP 4 Set-up of the number of floors, and floor name.
STEP 5 Set-up of floor name and Gateway.
STEP 6 Set-up of indoor unit group.
STEP 7 Set-up of ventilation group.
STEP 8 Functional set up of an indoor unit and ventilation.
STEP 9 Creation of a plane view.
STEP 10 Set-up of icon arrange and name.
STEP 11 Set-up of block.
* "O.K." button completes the setting screen and the data of the
Warning Please ensure energy calculation upto and including yesterday have been completed before making any further changes.
Do you want a system configuration set up? Yes [NEXT(OK)] / No [Cancel]
OK >
Cancel
Please forwards to the next, if set up is desired.

(3)Function

Function			MJ-310E	Remarks
Number of set to control	Indoor unit, LOSSNAY		Max 1000 sets including indoor unit, LOSSNAN, OA Processing unit. Max. 20 sets for connection with G/W.	
	Number of indoor unit in a group		1 ~ 16 sets (not including interlocked equipment). However, indoor unit, LOSSNAY, K-control indoor unit can not be contained in a same group.	
	Number of remote unit in a group		0 ~ 2 sets	
	Number of system unit in a group		0 ~ 4 sets(including the number of remote controller)	
	Connectable equipment		Free Plan direct expansion type air conditioning unit, LOSSNAY (connectable with adapter), OA Processing Unit A-control Mr.SLIM (connectable with M-NET adapter or M-NET outdoor unit), K-control air conditioning unit (Connectable with K-transmission converter, not connectable if upper class exists).	
Display screen	Screen composition		For easier operation, there are separate windows provided for normal operation and for maintenance. For operational reliability password input is needed to prevent mis-operation.	
	Control screen		Freely operable without password. This screen is used for normal operation : monitoring, and control of calendar function, scheduled ON/OFF control, operating time accumulation, abnormality history, daily and monthly reports, air-conditioning energy monitor.	
	Initial screen		Requiring a fixed password. This screen is used for maintenance to control plane image setting, group/block, printer setting, energy monitor setting, etc.	
Monitoring	Operation & setting	ON/OFF	Displays some floors in the window to monitor operation status by group on each floor. Displays each floor to monitor and turn ON/OFF by group.	
		Operation mode	Displays each floor to select operation mode (AUTO, COOL, HEAT, FAN, and DRY) and monitor the set status by group.	*1
		Set temperature	Displays each floor to set desired temperature and monitor the set status by group. Set temperature range (in 1 ˚C unit) COOL/DRY 19˚C - 30˚C HEAT 17˚C - 28˚C AUTO 19˚C - 28˚C (It can set between 19˚C - 28˚C when plural group setting)	*1
		Air speed	Displays each floor to select and monitor the air speed HIGH / LOW, etc.	*1
		Remote controller prohibit / permit	Displays each floor to select and monitor the prohibit/permit status of remote controller operation. Then prohibited, the remote controllers will not work, and only the main controller can control operation. It is possible to individually disable/enable operation functions (ON/OFF, operation mode, temperature, filter reset) of the local remote controller.	*2
	Abnormality monitor		Displays message when an abnormality has occurred. Displays some floors to monitor abnormality status by group on each floor. (whole building display) Displays each floor to monitor abnormality status and check code by unit. (Refer to the column of abnormality history.)	
	Room temperature monitor		Displays each floor to monitor room temperatures measured by operating indoor units (at typical point in each group). Room temperature indication becomes invalid while the indoor unit is not operating.	
Control	Calendar function (Yearly schedule)		Holidays and particular days (up to 20 days) can be set freely. Selects the date to search for scheduled ON/OFF operation.	
	Scheduled ON/OFF control (Weekly schedule)		ON/OFF schedule can be set by group, by floor, or for the whole building, and a schedule pattern can be copied to another group. In the daily ON/OFF schedule, operation ON/OFF can be set in 1 minute units for up to 10 times. In the weekly ON/OFF schedule, a pattern can be set for each day of the week. Weekly schedule is valid for every week in a year, excepting the particular days and holidays. For particular days, special schedule can be set, independent of weekly schedule.	

*1 When the function can not be operated or set due to restriction of the unit to be controlled, the function is not displayed on the window.
*2 The operation may not be prohibited depending on models.

Functions of main controller
<Standard functions>

Function		MJ-310E	Remarks
Measurement	Operation time accumulation	Records cumulative operation time (in 1 hour units) of typical unit in each group. When the cumulative time exceeds 16,666,666, it will reset to 0. Cumulative time can be cleared freely. Note: Operation time is counted based on unit ON/OFF switching. This is independent of thermostat ON/OFF.	
Record	Abnormality history	Displays contents of abnormalities from the newest one, and records the date and time of occurrence and recovery. Memorizes max. 10,000 cases and deletes the data from the oldest one when the number of cases has exceeded 10,000. Data can be searched and printed by operation by operator.	
	Operation history	Displays contents of operations from the newest one, and records the date and time of occurrence. Memorizes max. 10,000 cases and deletes the data from the oldest one when the number of cases has exceeded 10,000. Data can be searched and printed by operation by operator.	
	Daily and monthly reports	Prints daily or monthly report when designated on abnormality history window or operation history window. (without rule printing)	
Control	Grouping	Designates and registers a group the unit belongs to, and displays the unit organization registered in the group.	Must be set on system setting window.
Application	Plane image setting (CRT display)	Floor plane image and machine control image can be arranged with easy drafting function. Then the control image (icon) for a floor is large, it can be divided to several windows. Note: The windows other than the floor window (such as whole building display) are automatically prepared or displayed in fixed format, and not provided with the above function.	
	Input operation	Mouse is used for most of input. Key board and ten keys are used for only limited input such as name input.	
	Summer time	Changes clock automatically by switching summer time ON/OFF.	
	Air conditioning charge	The proportional electric power consumption per block and the power charge calculated in a unit of month are displayed. A-control, K-control, LOSSNAY and OA processing units will be charged with the unit of a watt-hour meter. The air conditioning charge per block does not include the charge of the equipment calculated in a unit of a watt-hour meter.	Must be set on system setting screens.

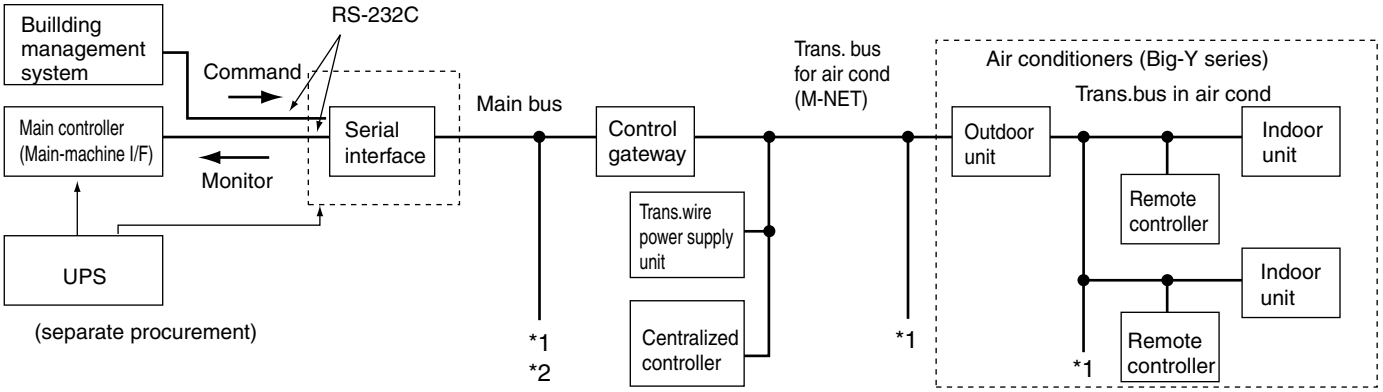
2. MB-300

■ Functions

Functions of main controller
<Standard functions>

Function			MB-300	Remarks
Separation of operating window Password for maintenance window			The exact nature of operation depends on the specification of the building management system.	
Monitoring	Operation & setting	ON/OFF	The building management system is capable of performing ON/OFF operation by group unit. The building management system is also capable of monitoring ON/OFF status.	
		Operation mode	The building management system is able to switch and monitor operation modes (cool, heat, fan, dry) by group unit.	
		Set temperature	The building management system is able to set and monitor the temperature by group unit. Set temperature range (in 1˚C unit) COOL/DRY 19˚C - 30˚C HEAT 17˚C - 28˚C	
		Air speed	Operation cannot be performed by the building management system.	
		Remote controller prohibit / permit	The building management system is capable of setting and monitoring the inactivation/activation of local remote controller operation by group unit. When an inactivation has been set, operation by the local remote controller is disabled and only operation by the building management system is possible. It is possible to individually disable/enable operation functions (ON/OFF, operation mode, temperature) of the local remote controller.	
	Abnormality monitor		The building management system keeps track of error occurrence. It keeps track of the error code and the unit address of the unit from where there error is occurring.	
	Room temperature monitor		The room temperature is monitored by monitoring requests from the building management system.	
Control	Calendar function		The calendar and schedule function vary depending on the specification of the building management system.	
	Scheduled ON/OFF control			
Measurement	Operation time accumulation		The power save amount is totaled for each unit by request from the building management system. The total count is calculated at the 15 and 45 minute mark every hour. The total count will increase until 999999 and when the count exceeds this number, it will loop and start at 0. This counter can also be freely preset by the building management system.	
Record	Abnormality history		Recording varies depending on the specification of the building management system.	
	Operation history			
	Daily and monthly reports			
Control	Grouping		The monitor display and the operation method varies depending on the specification of the building management system.	
Application	Plane image setting (CRT display)			
	Input operation			
	Summer time		Daylight savings varies depending on the building management system clock function.	

3. Basic configration

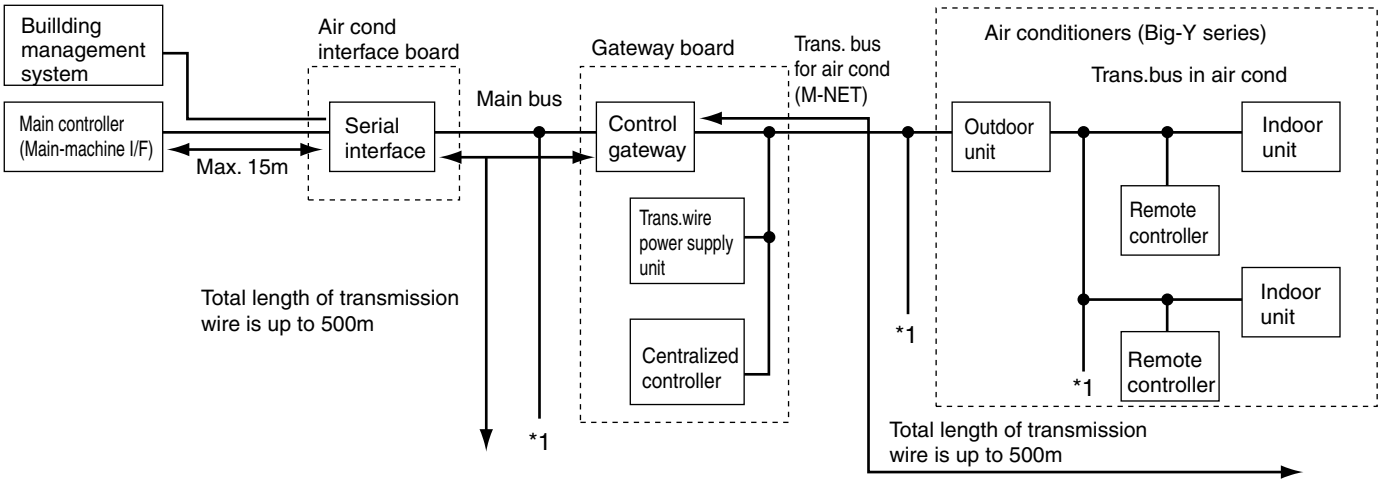


Deliverable equipment list

Description	Function
Main controller	Man-machine device to monitor, operate, and record air conditioners
Serial I/F	Interface for host system to exchange comm. data with MELANS main bus
Control gateway	Exchanges comm. data between MELANS main bus and air-cond. transmission bus
Centralized controller	Centrally controls each group for backup when host system cannot control control M-NET units due to trouble
Trans. wire power supply unit	Provides DC power to air-conditioner transmission bus to communicate each unit connected to air-conditioner transmission bus
Remote controller	Operates and monitors the Y, R2, Super-Y series air conditioners

Notes *1 Continued to similar organization (omitted)
*2 Adding gateway board enables extension of air conditioners. G/W = max.20 units

Figure 1. 2 Restriction on wiring



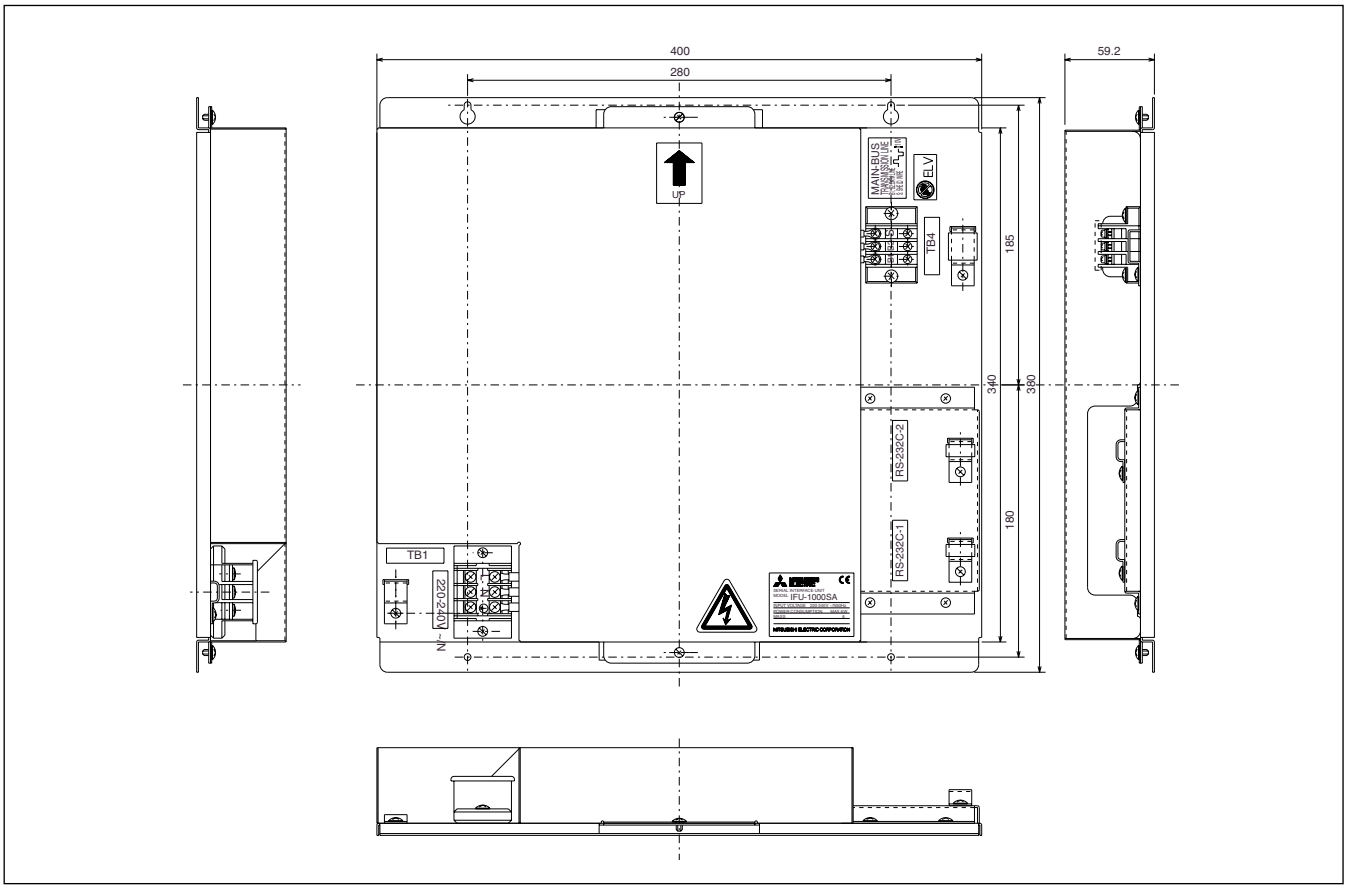
Notes *1 Continued to similar organization (omitted)

4. Serial Interface unit (IFU-1000SA)

■ Specification

Source power	Input voltage AC220V~AC240V, 0.1A(Maximum loading) / 50Hz, Single-phase		
	Fuse: 2.0A Time-delay type (IEC-127-2 S.S.3)		
Interface condition for transmission line	MAIN-BUS transmission line ; AMI signal RS-232C transmission line ; V.24/V.28 Pin Arrangement 1: FG, 2: SD, 3: RD, 4: RS, 5: CS, 6: DR, 7: SG, 8: CD, 20: ER		
Environmental condition	Temperature	Operating 0~40˚C Non operating 0~70˚C	
	Humidity	30~90%RH(No condensation)	
Dimensions	380(High) X 400(Width) X 59.2(Depth)		
Weight	3.6kg		

■ External dimension



■ Parts prepared at site

Please prepare the following parts before installation of the unit.

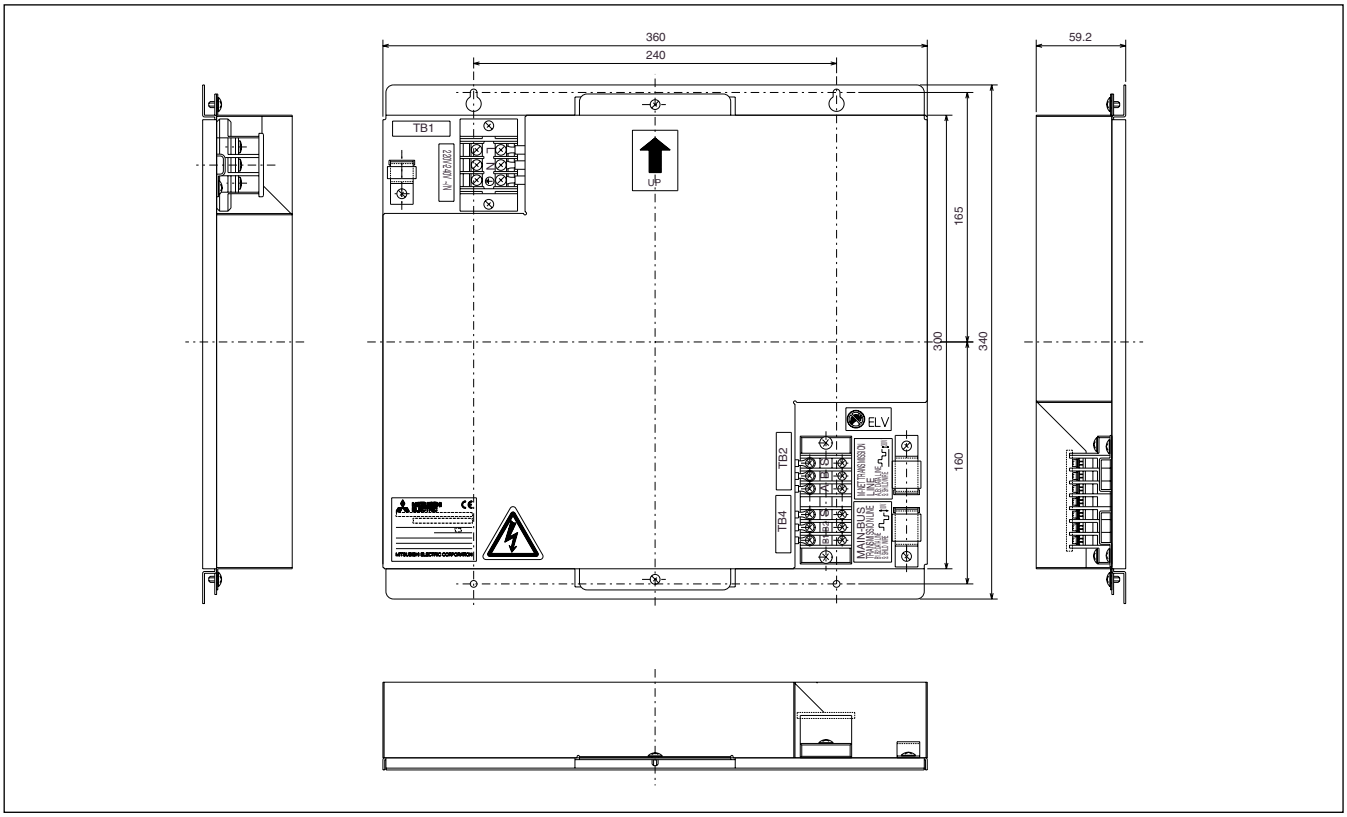
Preparation parts	Specification
Unit fixing screw	M4 screw × 4 pcs
Power cable Protective earth cable	Please prepare the power cable complied with your applicable technical standard in consider with power requirement of the unit. *Recommend type; ø1.5mm ~ ø2.0mm (H03VV-F, H03VVH2-F, H05VV-F, H05VVH2-F2)
Main power switch (Circuit breaker)	Qty. : 1 pc Type : 250VAC Single-phase 50Hz 3A *Recommend type; CP30-BA series (MITSUBISHI ELECTRIC) or equivalent.
Transmission cable	1. MAIN-BUS transmission line: Sheathed vinyl cords or cable which comply with the following specification or equivalent. CPEVS ø1.2mm ~ ø1.6mm CVVS 1.25mm^2 ~ 2mm^2 *CPEV; PE insulated, PCV jacketed shielded communication cable *CVVS; PVC insulated, PVC jacketed shielded control cable 2. RS-232C transmission line: Please prepare the RS-232C cable which comply with the pin arrangement in “Specification”. NOTE Cable length; There is a limitation for the transmission line. Please refer to section “System limitation”.

5. Gateway unit (GW-50A)

■ Specification

Souse power requirement	Input voltage	AC220V~AC240V; 0.1A/50Hz Single-phase
	Fuse:2.0A Time-delay type (IEC-127-2 S.S.3)	
Interface condition for transmission line	MAIN-BUS transmission line; AMI signal M-NET transmission line ; DC30V+AMI signal	
Environmental condition	Temperature	Operating 0~40˚C Non operating 0~70˚C
	Humidity	30~90%RH(No condensation)
Dimensions	340(High) × 360(Width) × 59.2(Depth)	
Weight	3.2kg	

■ External dimension

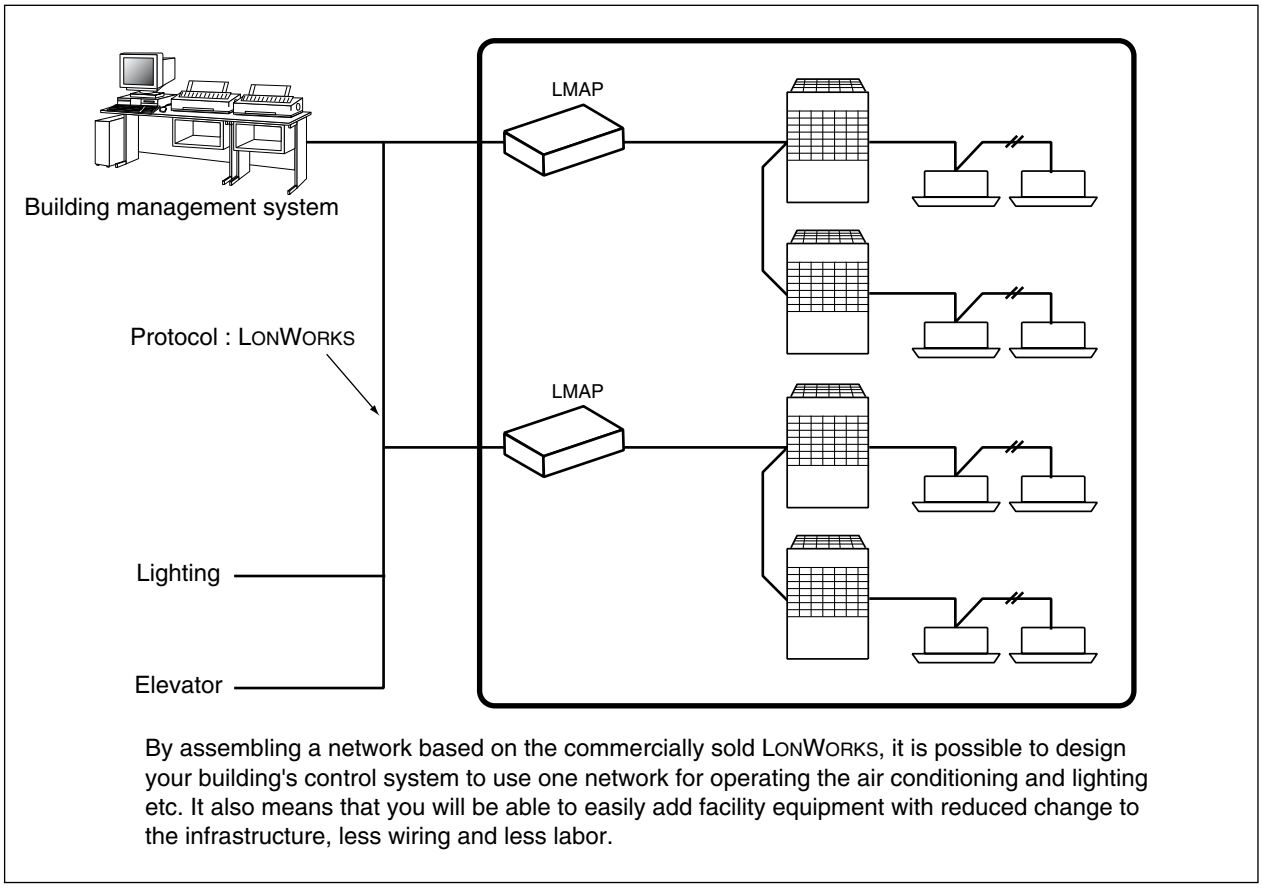


3-4 Air conditioner interface (LMAP02-E)

- Achieve an open network by using LONWORKS.
- The demand is growing for open network systems that cater for demands such as the ability to freely select the facility equipment that will connect to the building management system regardless of maker or demands to cut back on the interface kit or gateway that links the building management system with the facility equipment. By using LONWORKS, Mitsubishi Electric has achieved an open network for operation information at the remote controller level for the multiple air conditioner units used in a building.
- This has created the potential for system architectures that require simpler design and reduced labor cost.
- By first making the functional profile (protocol specification) open, the onsite system integrators can enjoy design freedom. Furthermore, because LONWORKS provides a means for each facility equipment to connect to a single network, you can cut back on the wiring labor cost as your system will require less wiring.
- One LM-API unit can connect up to 50 indoor units.
- Using a single LONWORKS adapter (LM-AP), you can connect up to a maximum of 50 indoor units.

	Item
Operation	Request On/Off
	Request Mode
	Setpoint from network(Both cool and heat)
	Request Fanspeed
	Request Local Prohibit On/Off
	Request Local Prohibit mode
	Request Local Prohibit SetPoint
	Request All Off
Monitor	On/Off run state
	Mode state
	Setpoint state(both cool and heat)
	FanSpeed state
	Thermo On/Off state
	Temperature state of indoor
	Alarm state
	Local Prohibit On/Off state
	Local Prohibit mode state
	Local Prohibit SetPoint state

■ System example



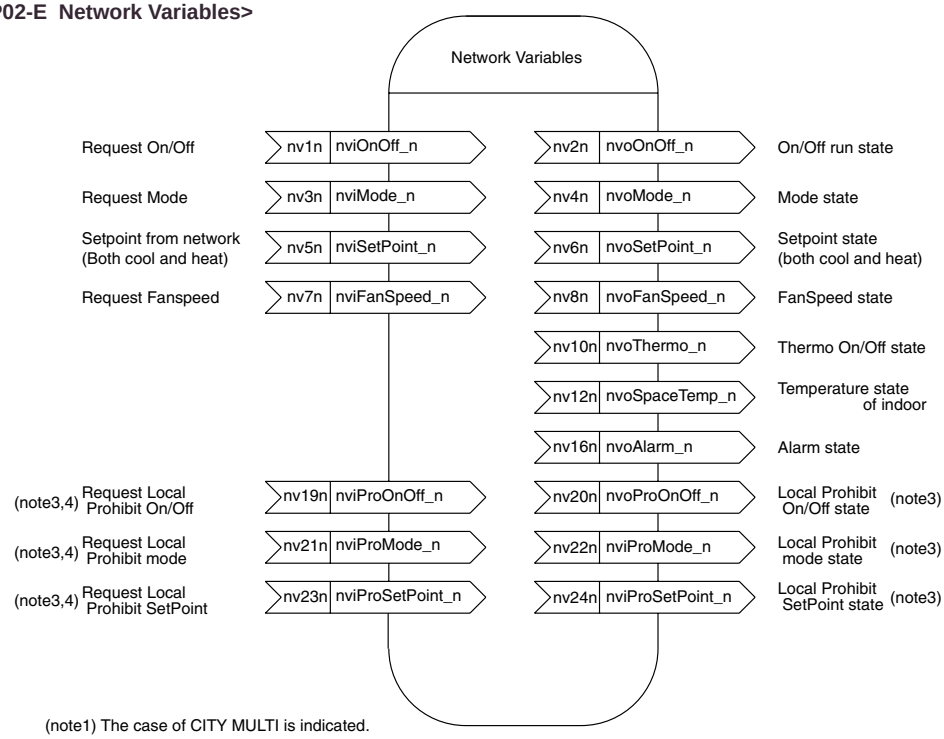
By assembling a network based on the commercially sold LONWORKS, it is possible to design your building's control system to use one network for operating the air conditioning and lighting etc. It also means that you will be able to easily add facility equipment with reduced change to the infrastructure, less wiring and less labor.

■ Environment specification

Item		Description
Connected Equipment		MITSUBISHI ELECTRIC Multiple split type air conditioners CITY MULTI Split-type air conditioners Mr.SLIM Heat recovery ventilators LOSSNAY (*For details of the connected models,please contact the dealer.)
Number of Units		LM-AP can control 50 indoor units (including LOSSNAY)
Neuron CHIP		TMPN3150 (10MHz)
Network Transceiver		FTT-10A (Free Topology 78kbps)
Performance	Average communication capacity	2.5 inputs/second
	Peak communication capacity	50 inputs/second (for one second)

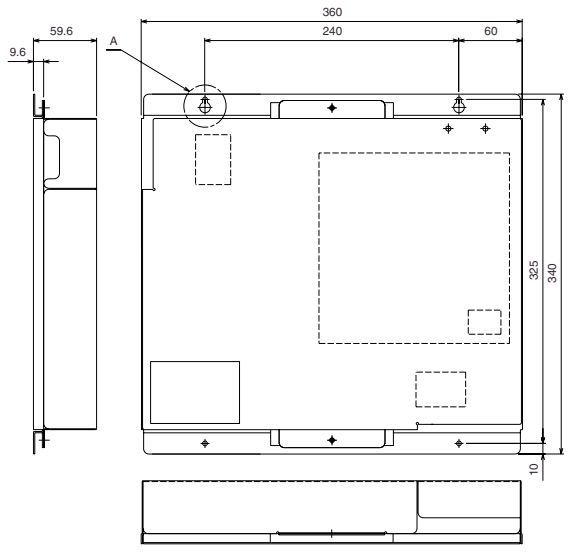
* The proper communication is not obtainable when communication intervals exceed its performance, assure sufficeint intervals.
* ACK Service is recommended for the network service.
* Detailed specifications for the LONWORKS network can be found in " FTT-10A Free Topology Transceiver User's Guide " by Echelon Corporation.

<LMAP02-E Network Variables>



(note1) The case of CITY MULTI is indicated.
(note2) There is a case which cannot be used with the system configuration of the air conditioners units.
(note3) "n" of the network variable shows indoor unit address (M-NET).
(note4) It is possible to use when the "MA" remote controler.

■ External dimension

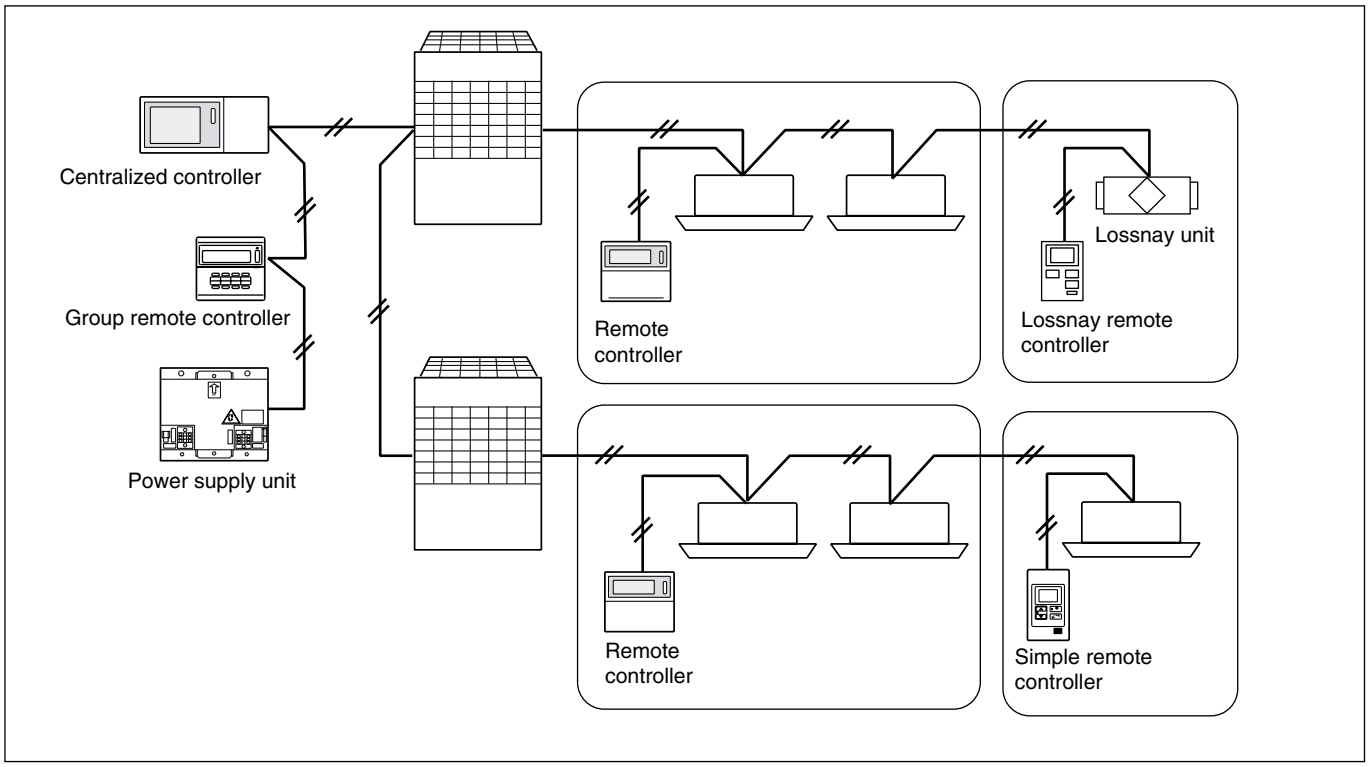


Item			Description
Dimensions			340 (H) x 360 (W) x 59.6 (D) mm
Net Weight			3.3 kg
Power Source			~ 220 - 240V (50/60 Hz)
Current Consumption			50 mA (Maximum)
Operation Environment	Temperature	Operating Range	-15 to 43˚C
		Storage Range	-20 to 60˚C
	Humidity		30 to 95 RH (No condensation)
Installation Environment			In the control box

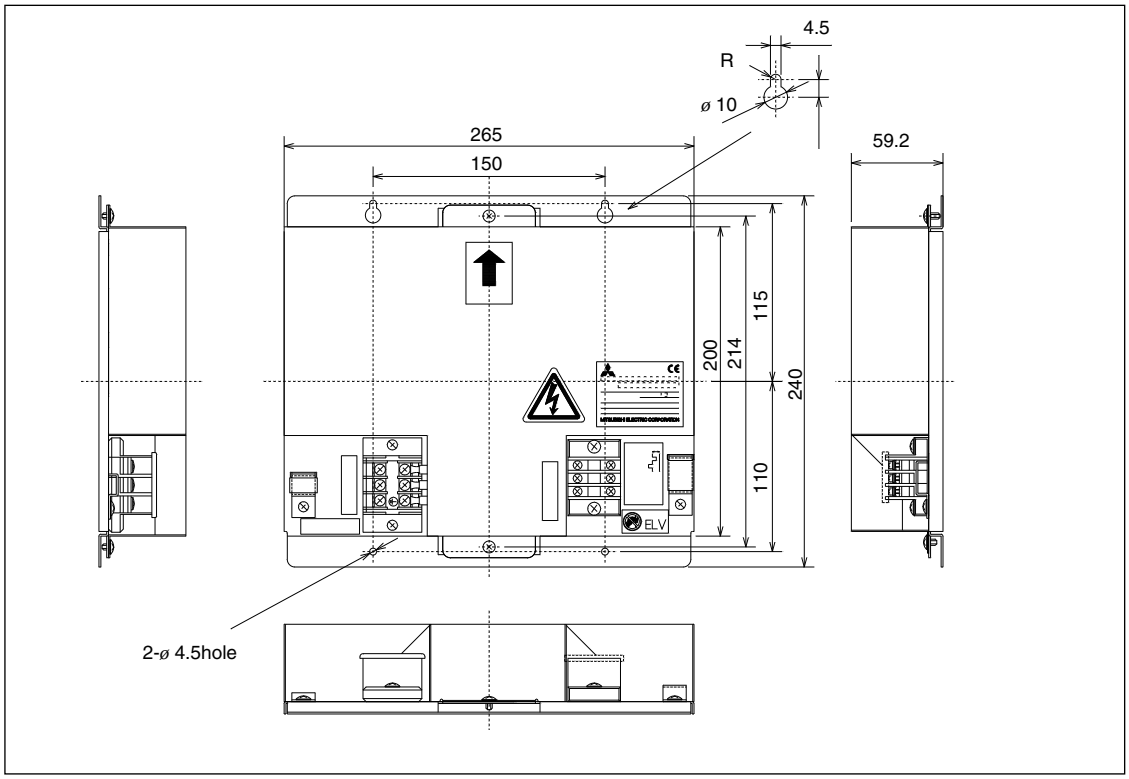
3-5 Power supply unit (PAC-SC34KUA)

- This unit is recommended when the air conditioner system has up to two system controller units (MJ-103MTRA).
- This unit is designed to supply power to MELANS controllers and remote controllers. When your local remote controllers are not powered from the outside unit, always use it for local remoter controllers as well.

■ System example



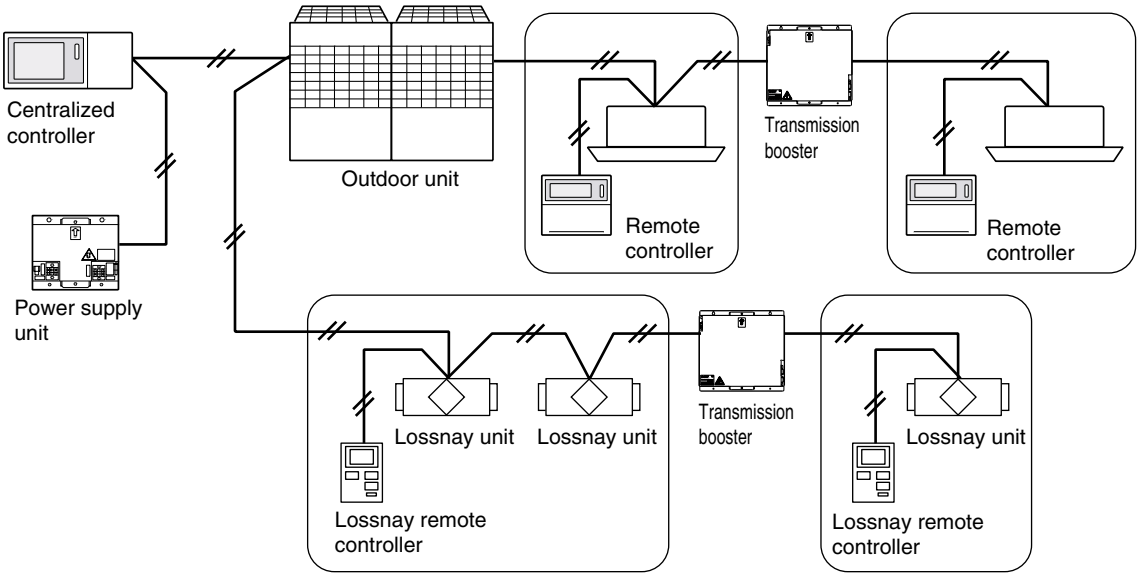
■ External dimension



3-6 Transmission booster (PAC-SF46EPA)

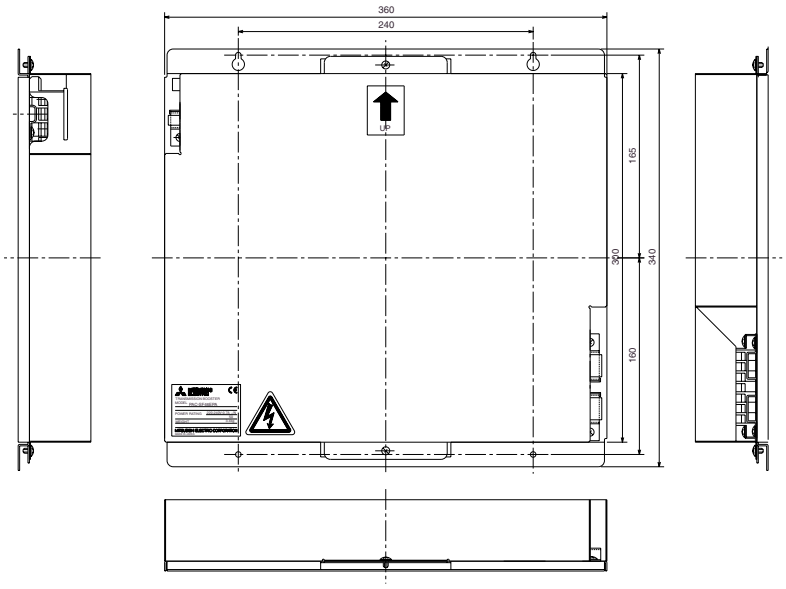
- ●Use this unit when adding more Y (16HP, 20HP) or SUPER Y indoor units or local remote controllers. Requirement depends on the number of indoor units connected to the same refrigerant system.
- ● See the Y (16HP, 20HP) or SUPER Y installation documentation for more information.
- ● This unit is also suitable when adding more Lossnay remote controllers.
- ● Requirement depends on the performance of the unit supplying power to the signal cables and on the number of Lossnay remote controllers (PZ-52SF and PZ-52SKF2) that are connected. In this case, a power supply expansion unit for signal cables can provide power for up to 50 Lossnay remote controllers. Please use the power supply expansion unit for the signal cable if the power supply exceeds the amount prescribed in the following table.

■ System example



Note: This unit cannot be used to extend the transmission line.

■ External dimension



■ Restriction of connecting, Lossnay remote controller

Use the transmission booster, when the value of power supply to the remote controllers from the power supply unit over the one of the under table.

Power supply unit PAC-SC34KUA / Centralized controller Multi panel	Lossnay Remote controller
0	30
1	26
2	22
3	18
4	14

PAC-SF46EPA

4. System compornet

In a multi air conditioner system that is a free plan direct-expansion type, a connector for inputting and outputting signals to/from the outside is fitted as standard on the control board of the indoor and outdoor units. Use this when you want each unit to input/output signals individually. (Note: When there are many control units it is recommended that you use MELANS. This would enable you to save on labor.) In order to have an input output signal from each connector, you must have a dedicated adapter (sold separately) and a relay circuit (onsite arrangements).
Note : See next page for actual examples of use.

■ Types of control that uses connectors for the outdoor unit input output signal (connection for each type of option).

Category	Application	Function	Connector		
			Y, Super Y	R2	WR2
Input	Method of disabling cool and heat operation (thermo off) by input from the outside to the outdoor unit.	Comp ON/OFF	CN3S	CN3D	—
	The low noise operation of the indoor unit can be commenced by the external input to the outdoor unit.(The night mode can be adapted only under the outdoor temperature condition of 30˚C or less for cooling and 3˚C or more for heating)	Night mode	CN3D	—	—
	You can switch the operation mode between cooling and heating by input from the outside to the outdoor unit.	Autochangeover			
Output	Method of receiving a signal from the outdoor unit to the outside. * Can be used as a device that displays the operation state. * Can be used as an interlocked control with external equipment.	Compressor is run state	CN51	CN51	CN51
		Error state			

■ Types of control that uses connectors for the indoor unit input output signal (connection for each type of option)

Category	Application	Function	Connector
Input (Note 2,3)	Method of ON/OFF control by turning on and off switches or contacts from an outside to each indoor unit group. Can be used as a timer adapter (Note 1) Can be used as a "forget to switch off prevention" or "forced stop".	Distant/local switching (note 1)	CN32
		ON/OFF (level)	
	Method of ON/OFF control by inverting start/stop using external pulse (a-contact) for each indoor unit group.	ON/OFF (pulse)	CN51
Output	Method of sending signals to outside for each indoor unit group. It can be used as a device to display operation states. It can be used as an interlocked control with the external equipment.	Operation state	CN51
		Error state	
		Operation mode (heat) state	CN52
		Operation mode (cool, dry) state	
		Thermo ON (fan) state	

Note 1: Connect the signal input only to the principal unit in a group.
(However, the demand input is required to enter into indoor units individually.)
Note 2: When using start/stop input at group operation, Local remote controller is necessary.
(MA remote controller or M-NET remote controller)
Note 3: When setting to Remote, operation can not be performed from Local remote controller.
The remote controller displays [CENTRALLY CONTROLLED].
Note 4: When using start/stop input at group operation, [Automatic address start-up] can not be performed.
Note 5: When CN51 or CN52 is commonly used as an output signal, be sure to use the remote display kit.
Note 6: The remote display kit can be used for the input signal of CN51 and CN52.
Note 7: Connect to the principal unit only when using [Operating status] or [Operation mode (Heating/Cooling-Dry) of signal output. Connect to indoor units individually when using [Error status] or [Thermostat ON (or fan) status]

It is possible to have ON/OFF control by turning the indoor unit power on and off. You can select functions by setting the DipSW1-9 and 1-10 on the indoor unit.

■ Types of ON/OFF control (indoor unit settings)

It is possible to have ON/OFF control for each indoor unit (or group) by dip switches 9 and 10 (SW1-9, SW1-10) of the indoor unit.

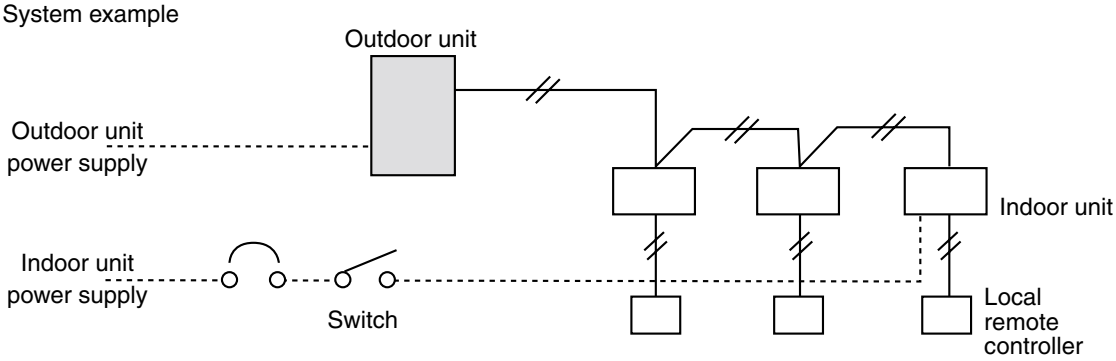
Function	Operation when indoor unit recovers	Setting SW2 (note 1)	
		9	10
All auto restart	All indoor units will always restart regardless of the state that was before the power was turned off (POWER OFF) (after 5 minutes).	–	ON
Auto recovery	Indoor units which are operated before the power was turned off (POWER OFF)will restart (after 5 minutes).	ON	OFF
All OFF	Operation stays stopped regardless of the state that was before the power was turned off.	OFF	OFF

Note 1. The dip switch setting for all units in the indoor unit group is required.
Note 2. Do not cut-off the power to the outdoor unit. If you do, it will disconnect the power to the crankcase heater of the outdoor unit and that could cause damage to the compressor.
Note 3. This cannot be applied to the power ON/OFF of the drain pump and humidifier equipment.

■ Description of when using distant/local switching (CN32)

SW1 Local switching	SW2 ON/OFF	State	Remote controller display/operation
OFF	OFF	Local / Permit	The opeartion permit
ON	OFF	Distant / Stop	It displays "CENTRALLY CONTROLLED", while the state is distant. It prohibits ON/OFF operation of remote controller.
ON	ON	Distant / Operate	

■ System example



When the power to the outdoor unit is cut-off for a long time, the crankcase heater for the compressor also stops. If the compressor is started soon after the power is restored, there is a chance that a fault will occur in the compressor. When using the above function, make sure the power to the outdoor units will not be cut-off.

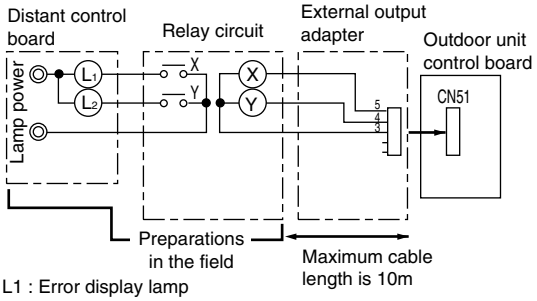
■ Limitations to combining system controls

	Description		Control combining distant/local	Pulse ON/OFF	Power ON/OFF	Automatic recover
1	Control combining distant/local	CN32	–	×*1	×*1	×*1
2	Pulse ON/OFF	CN51		–	○	○
3	HA ON/OFF (JEMA)	CN51			○	○
4	Power ON/OFF	-			–	×
5	Automatic recover	-				–

*1: Pulse ON/OFF, Power ON/OFF and automatic recover can only be used when the distant/local setting (CN32) is set to local. Therefore, always avoid this function when combining control.

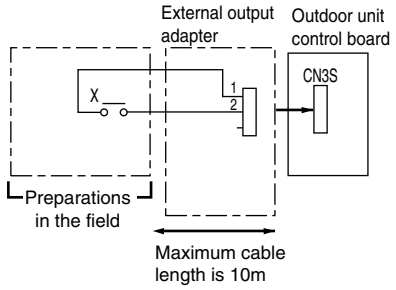
■ Outdoor unit input/output connector

• State (CN51)



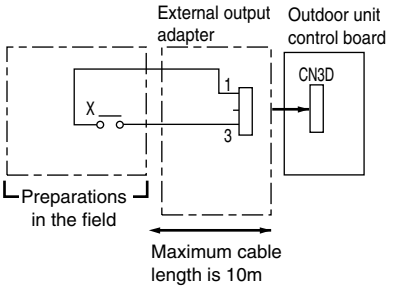
L1 : Error display lamp
L2 : Compressor operation lamp
X, Y : Relay (Coil standard of 0.9W or less for DC12V)

• Comp ON/OFF (CN3S) on PUHY



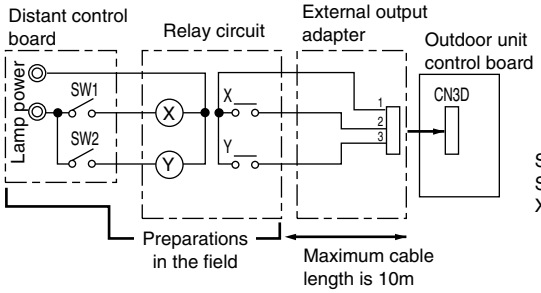
X : Comp ON/OFF

• Comp ON/OFF (CN3D) on PURY, PQRY



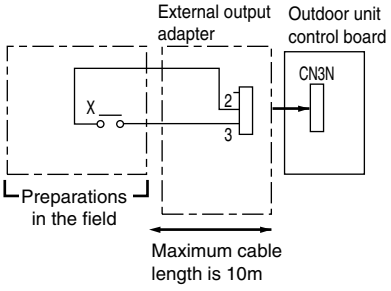
X : Comp ON/OFF

• Autochangeover (CN3D) on PUHY



SW1 : Cooling / Heating
SW2 : Validity / Invalidity of SW1
X, Y : Relay (DC1mA)

• Night mode (CN3N) on YMF-C

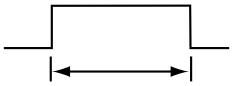


X : Relay
Night mode : The noise level is reduced by controlling the maximum fan frequency to be lower under the flowing condition.
Cooling mode : ambient temp. (TH6) < 30˚C
Heating mode : ambient temp. (TH6) > 3˚C

-Note-
The noise level can not be reduced. When the fan frequency is not maximum.

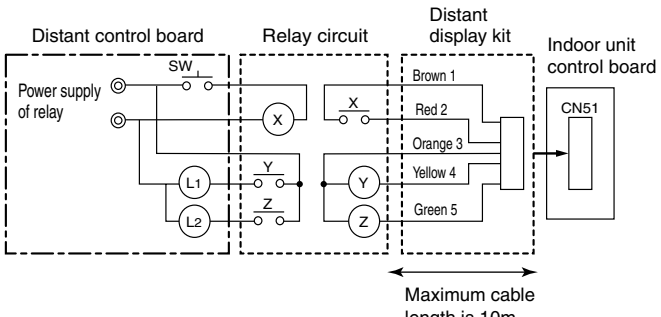
■ Indoor unit input/output connector

● ON/OFF (Pulse) input specification

Item	Description
Input signal	Pulse sign (a connect)
Standard of pulse	

● Input only

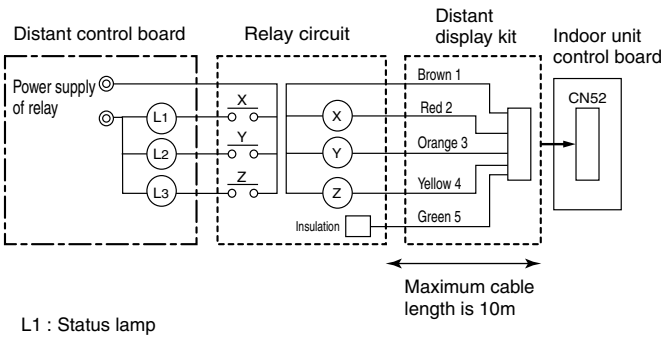
CN51



SW : Distant ON/OFF switch
L1 : Status lamp
L2 : Error lamp
X : Relay (a point of contact, fixed DC1mA)
Y, Z : Relay (Coil with fixed DC12V, a power consumption of 0.9 or less)

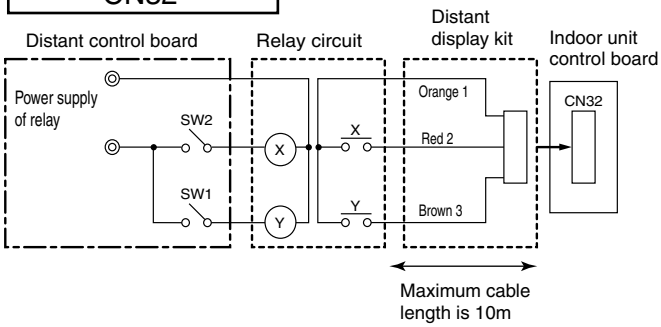
※ Every time the SW is pushed (the pulse is inputted), it make to react against ON/OFF.

CN52



L1 : Status lamp
Fan motor output (SW1-5 OFF)
Thermostat ON (SW1-5 ON)
L2 : Cooling/Dry status lamp
L3 : Heating status lamp
X, Y, Z : Relay (Coil with fixed DC12V, a power consumption of 0.9 or less)

CN32



SW1 : Distant/Local switching
SW2 : ON/OFF switch
X, Y : Relay (a point of contact, fixed DC1mA)

※ SW2 is available when SW1 is ON.

System component

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1. Electrical Work & M-NET control

1-1 Attention

① Follow ordinance of your governmental organization for technical standard related to electrical equipment, wiring regulations, and guidance of each electric power company.

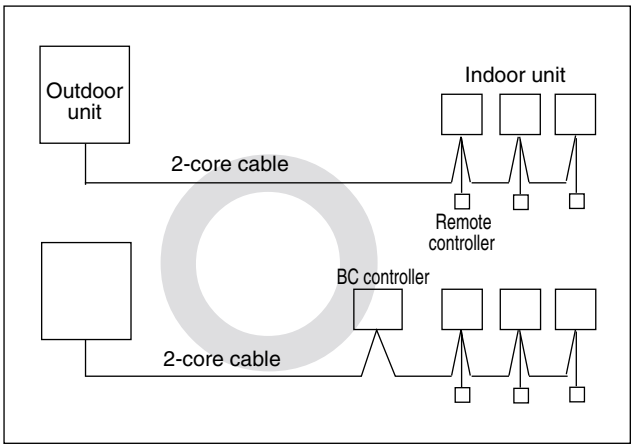
② Wiring for control (hereinafter referred to as transmission line) shall be (5cm or more) apart from power source wiring so that it is not influenced by electric noise from power source wiring. (Do not insert transmission line and power source wire in the same conduit.)

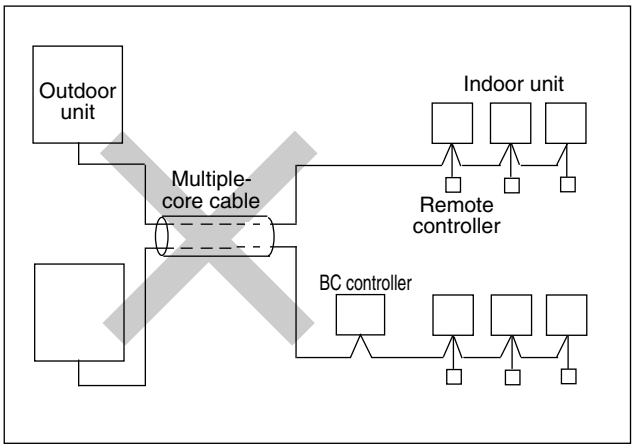
③ Be sure to provide designated grounding work to outdoor unit.

④ Give some allowance to wiring for electrical part box of indoor and outdoor units, because the box is sometimes removed at the time of service work.

⑤ Never connect 380~415V(220~240V)power source to terminal block of transmission line.If connected,electrical parts will be burnt out

⑥ Use 2-core shield cable for transmission line. If transmission lines of different systems are wired with the same multiple-core cable, the resultant poor transmitting and receiving will cause erroneous operations.

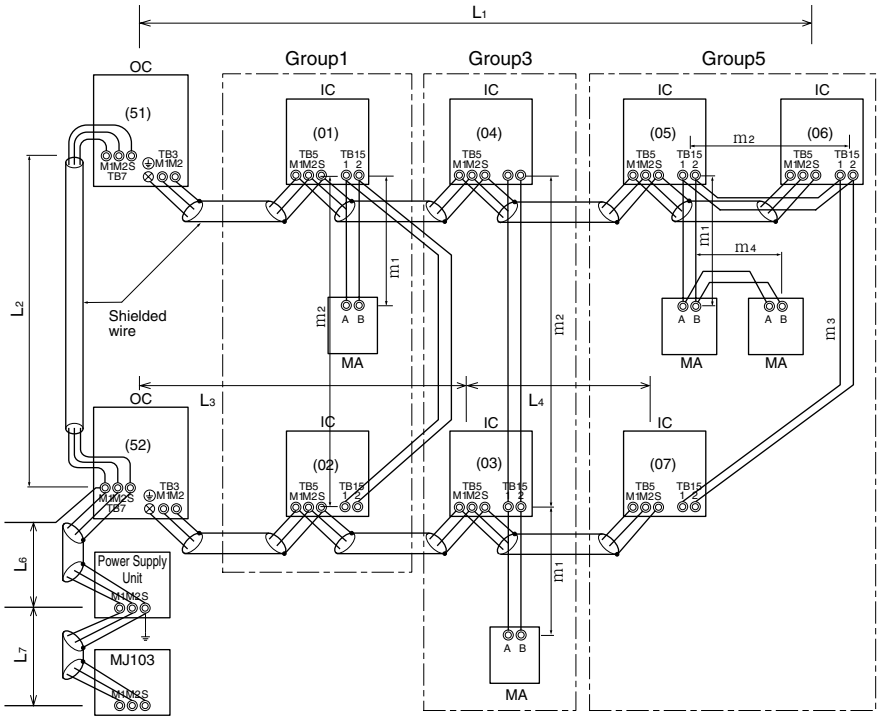




1-2 Allowable length of transmission line

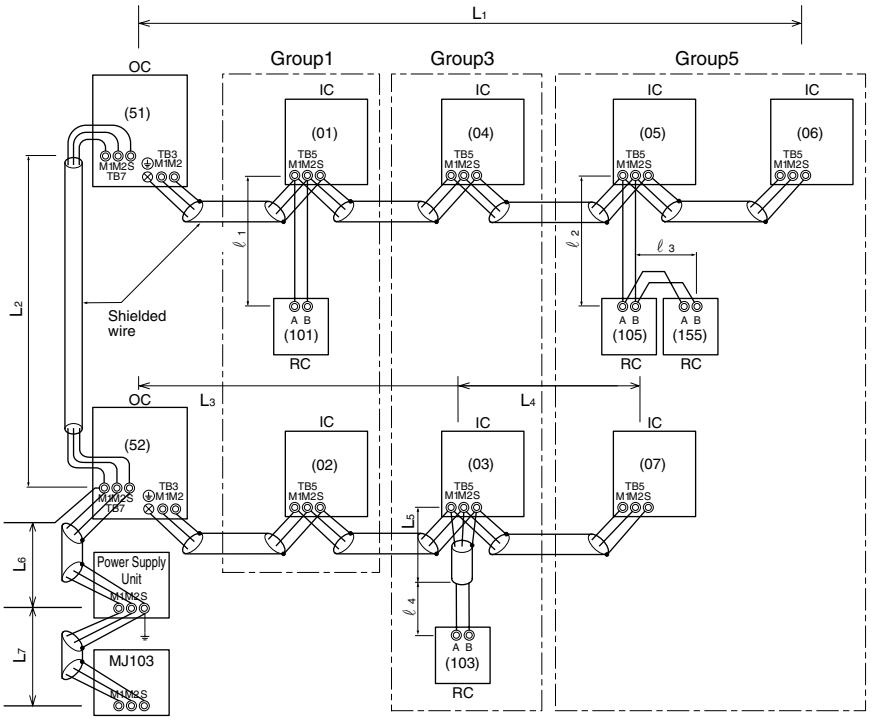
① PUHY, PUY, PUMY

MA Remote controller



- Max length via outdoor unit (M-NET cable) : $L_1+L_2+L_3+L_4$ and $L_1+L_2+L_6+L_7 \leqq 500$ m (1.25 mm² or more)
- Max transmission cable length (M-NET cable) : L_1 and L_3+L_4 and L_6 and L_2+L_6 and $L_7 \leqq 200$ m (1.25 mm² or more)
- Remote controller cable length : m_1+m_2 and $m_1+m_2+m_3+m_4 \leqq 200$ m (0.3 to 1.25 mm²)

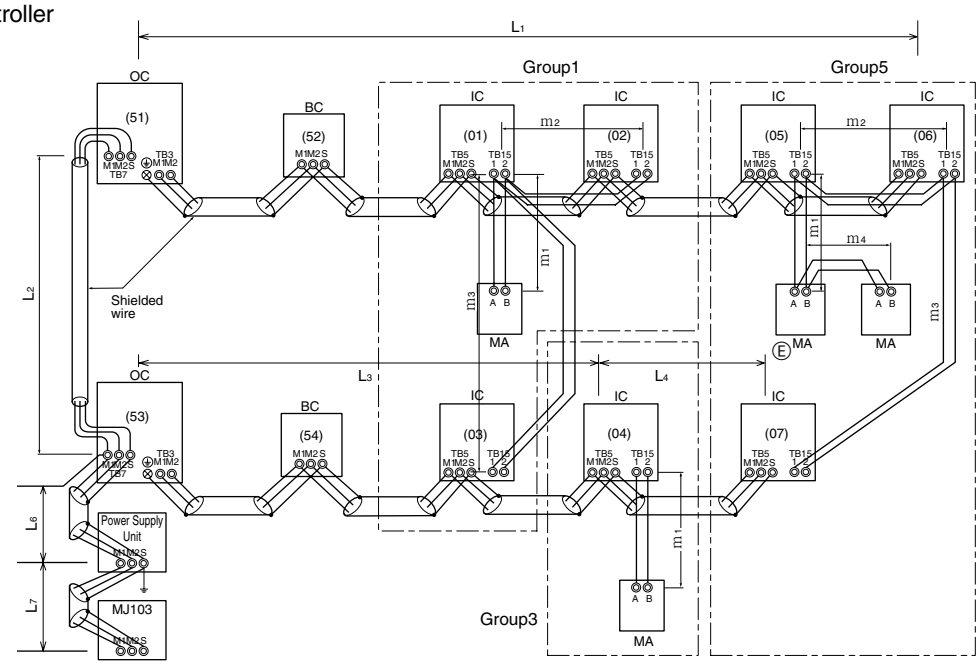
M-NET Remote controller



- Max length via outdoor units : $L_1+L_2+L_3+L_4$ and $L_1+L_2+L_3+L_5$ and $L_1+L_2+L_6+L_7 \leqq 500$ m (1.25 mm² or more)
- Max transmission cable length : L_1 and L_3+L_4 and L_3+L_5 and L_6 and L_2+L_6 and $L_7 \leqq 200$ m (1.25 mm² or more)
- Remote controller cable length : ℓ_1, ℓ_2, ℓ_3, $\ell_4 \leqq 10$ m (0.3 to 1.25 mm²)
  If the length exceeds 10 m, use a 1.25 mm² shielded wire. The length of this section (L_8) should be included in the calculation of the maximum length and overall length.

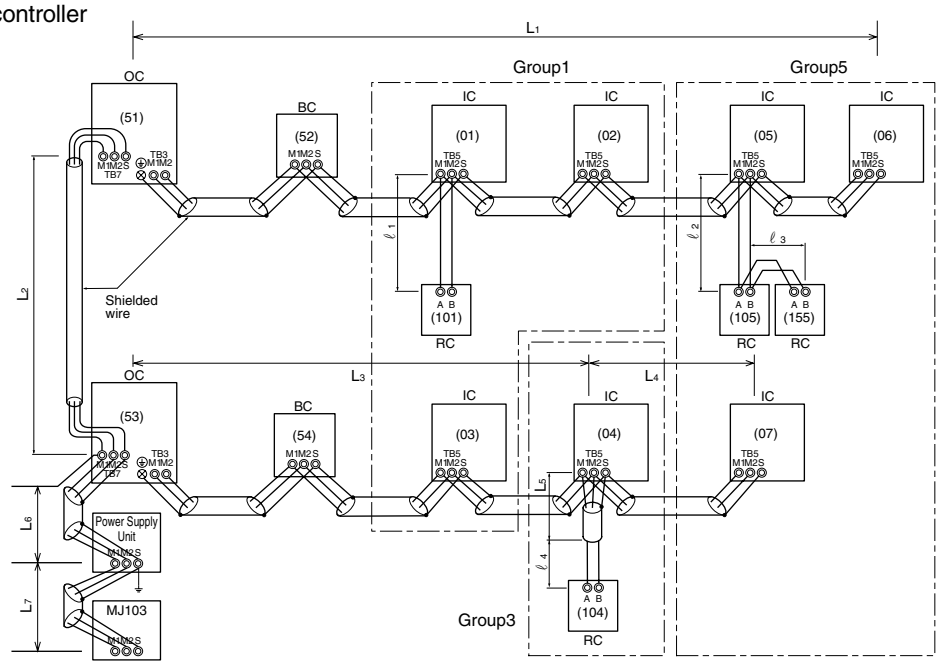
② PURY, PQRY

MA Remote controller



- Max length via outdoor unit (M-NET cable) : $L_1+L_2+L_3+L_4$ and $L_1+L_2+L_6+L_7 \leqq 500$ m (1.25 mm² or more)
- Max transmission cable length (M-NET cable) : L_1 and L_3+L_4 and L_6 and L_2+L_6 and $L_7 \leqq 200$ m (1.25 mm² or more)
- Remote controller cable length : m_1+m_2 and $m_1+m_2+m_3+m_4 \leqq 200$ m (0.3 to 1.25 mm²)

M-NET Remote controller



- Max length via outdoor units : $L_1+L_2+L_3+L_4$ and $L_1+L_2+L_3+L_5$ and $L_1+L_2+L_6+L_7 \leqq 500$ m (1.25 mm² or more)
- Max transmission cable length : L_1 and L_3+L_4 and L_3+L_5 and L_6 and L_2+L_6 and $L_7 \leqq 200$ m (1.25 mm² or more)
- Remote controller cable length : ℓ_1, ℓ_2, ℓ_3, $\ell_4 \leqq 10$ m (0.3 to 1.25 mm²)
  If the length exceeds 10 m, use a 1.25 mm² shielded wire. The length of this section (L_8) should be included in the calculation of the maximum length and overall length.

City Multi is a systemized product of which components are outdoor unit , BC controller , indoor unit ,and remote controller . Each system part has its own microcomputer, and operated by no-polarity two wires multiple transmission system. Therefore, in order for several microcomputers connected to the common two wires to identify transmitter, identification No. (address) must be set for each microcomputer.

Be sure to set address numbers at the time of installation work by using switches for setting addresses for outdoor unit , BC controller , indoor unit ,and remote controller .

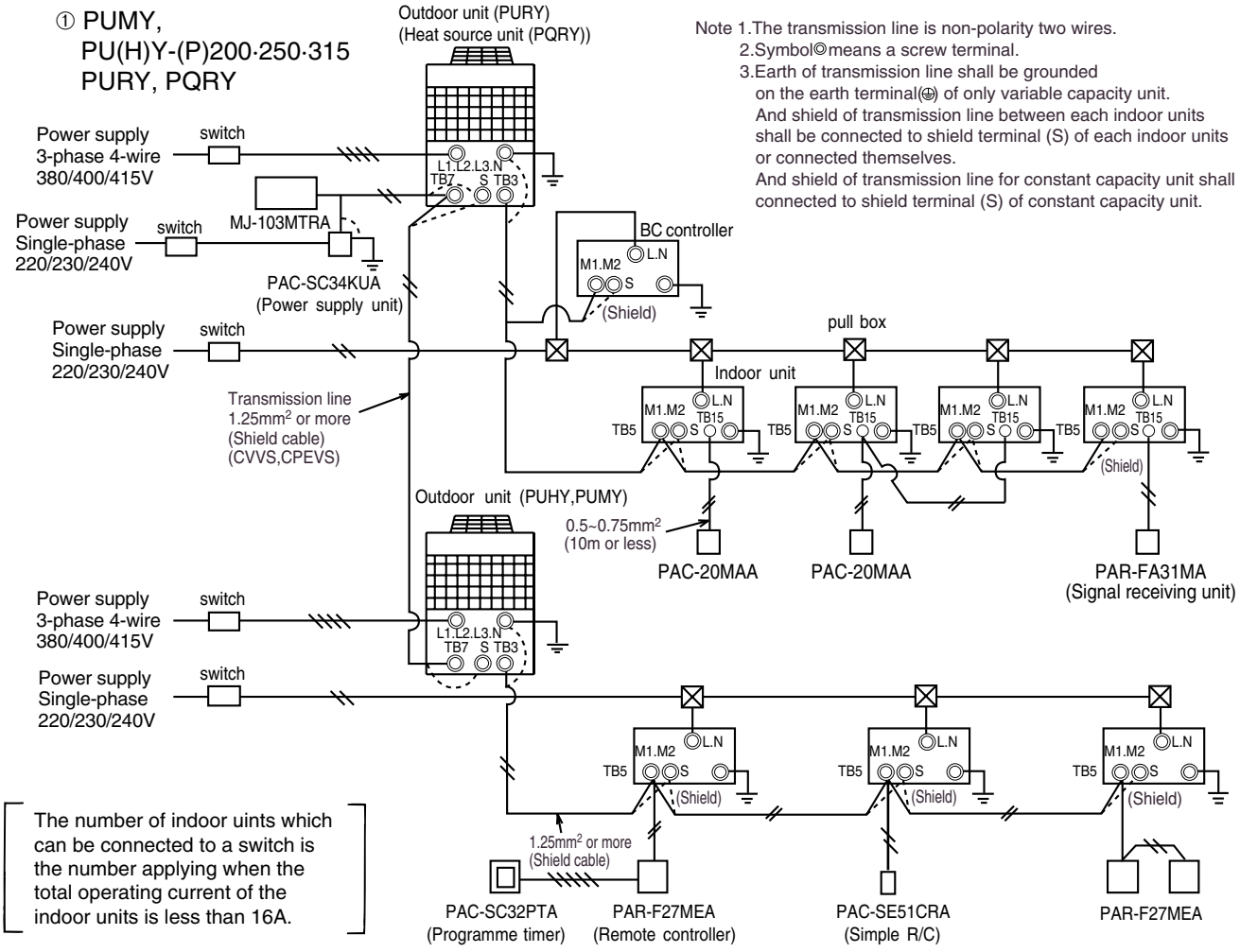
When signal receiving unit is used, connect the accessory cable (polarity 3 lines) to the specified connector (CN3R) on the printed circuit board.

1-3 Electrical work

(1) Main power supply connections and equipment capacities

The selection of capacities should be determined in accordance with the relevant standards.

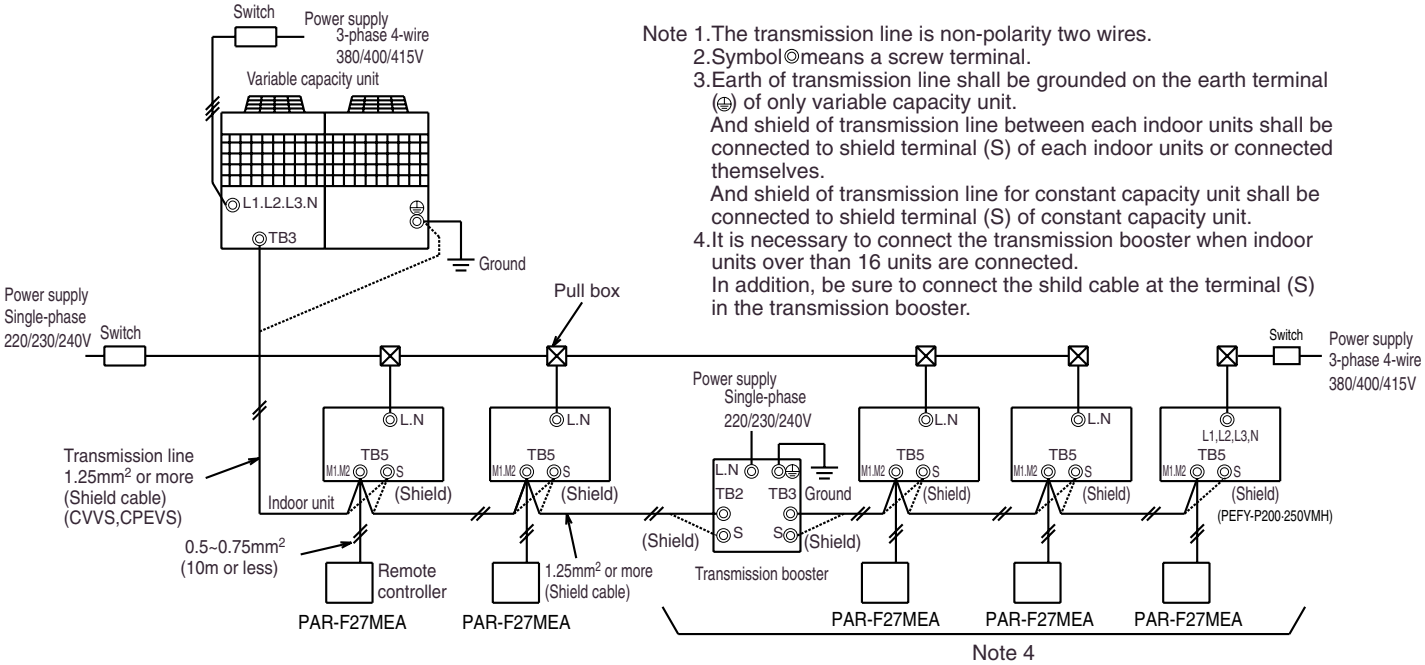
① PUMY,
PU(H)Y-(P)200·250·315
PURY, PQRY



Note 1.The transmission line is non-polarity two wires.
2.Symbol◎means a screw terminal.
3.Earth of transmission line shall be grounded on the earth terminal(⏚) of only variable capacity unit.
And shield of transmission line between each indoor units shall be connected to shield terminal (S) of each indoor units or connected themselves.
And shield of transmission line for constant capacity unit shall be connected to shield terminal (S) of constant capacity unit.

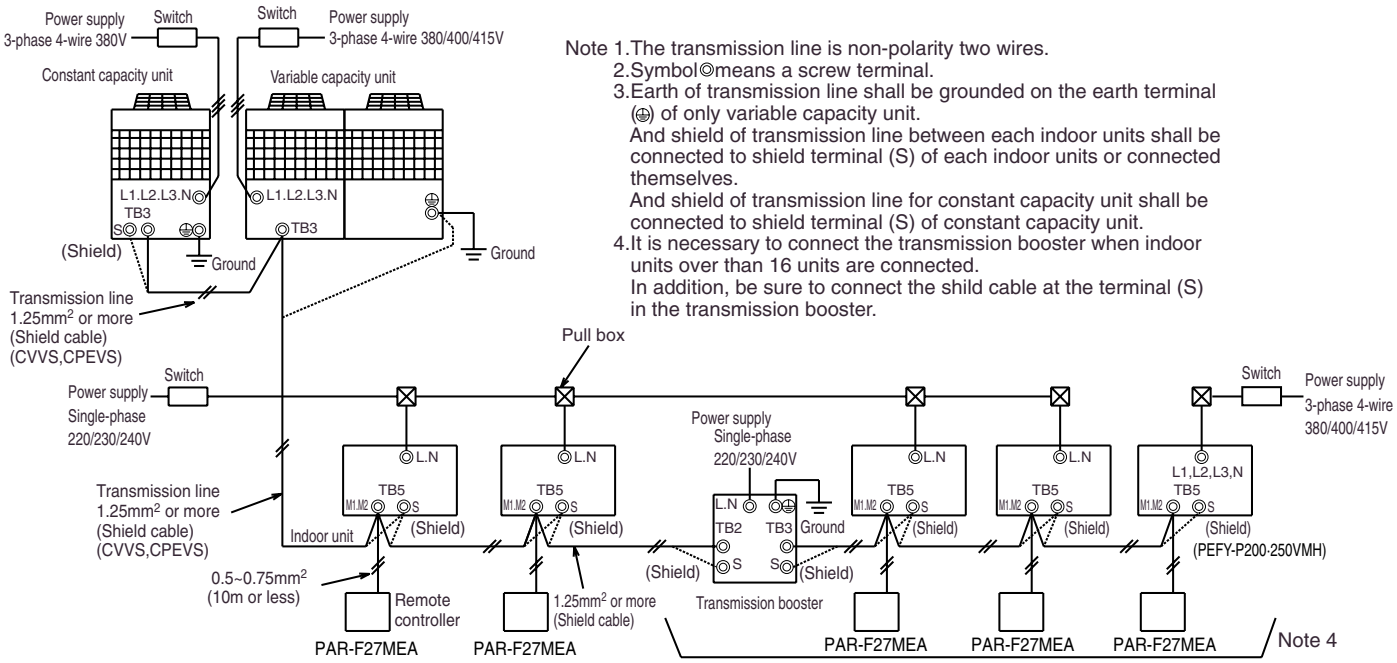
The number of indoor uints which can be connected to a switch is the number applying when the total operating current of the indoor units is less than 16A.

② PUHY-(P)400·500



Note 1.The transmission line is non-polarity two wires.
2.Symbol◎means a screw terminal.
3.Earth of transmission line shall be grounded on the earth terminal (⏚) of only variable capacity unit.
And shield of transmission line between each indoor units shall be connected to shield terminal (S) of each indoor units or connected themselves.
And shield of transmission line for constant capacity unit shall be connected to shield terminal (S) of constant capacity unit.
4.It is necessary to connect the transmission booster when indoor units over than 16 units are connected.
In addition, be sure to connect the shild cable at the terminal (S) in the transmission booster.

③ PUHY-(P)600·650·700·750



Note 1.The transmission line is non-polarity two wires.
2.Symbol◎means a screw terminal.
3.Earth of transmission line shall be grounded on the earth terminal (⏚) of only variable capacity unit.
And shield of transmission line between each indoor units shall be connected to shield terminal (S) of each indoor units or connected themselves.
And shield of transmission line for constant capacity unit shall be connected to shield terminal (S) of constant capacity unit.
4.It is necessary to connect the transmission booster when indoor units over than 16 units are connected.
In addition, be sure to connect the shild cable at the terminal (S) in the transmission booster.

Specific wiring requirements should adhere to the wiring regulations of the region.

Model		Minimum Wire Thickness (mm²)			Switch(A)		Breaker for Wiring (NFB)	Breaker for Current Leakage
		Main Cable	Branch	Ground	Capacity	Fuse		
Outdoor unit	200	4.0	-	4.0	32	32	40A	30A 100mA 0.1sec. or less
	250	6.0	-	6.0	40	40	40A	40A 100mA 0.1sec. or less
	315	10.0	-	10.0	50	50	50A	50A 100mA 0.1sec. or less
	400	10.0	-	10.0	63	63	75A	75A 100mA 0.1sec. or less
	500	16.0	-	16.0				
	600 400	10.0	-	10.0	63	63	75A	75A 100mA 0.1sec. or less
	600 200	4.0	-	4.0	32	32	40A	30A 100mA 0.1sec. or less
	650 400	10.0	-	10.0	63	63	75A	75A 100mA 0.1sec. or less
	650 250	6.0	-	6.0	40	40	40A	40A 100mA 0.1sec. or less
	700 500	16.0	-	16.0	63	63	75A	75A 100mA 0.1sec. or less
	700 200	4.0	-	4.0	32	32	40A	30A 100mA 0.1sec. or less
	750 500	16.0	-	16.0	63	63	75A	75A 100mA 0.1sec. or less
	750 250	6.0	-	6.0	40	40	40A	40A 100mA 0.1sec. or less

Model		Wire Thickness (mm²)			Switch(A)		Breaker for Wiring	Breaker for Current Leakage
		Main Cable	Branch	Ground	Capacity	Fuse		
Total operating current of the indoor units ※1	16A or less	1.5	1.5	1.5	16	16	20A	20A 30mA 0.1sec. or less
	25A or less	2.5	2.5	2.5	25	25	30A	30A 30mA 0.1sec. or less
	32A or less	4.0	4.0	4.0	32	32	40A	40A 30mA 0.1sec. or less

※1 The total operating current of the indoor units may fluctuate depending on the operating status of the indoor units. In order to prevent malfunctions, use a circuit breaker with a current of about 20% more than that listed in the specifications.

(2) Types of control cables

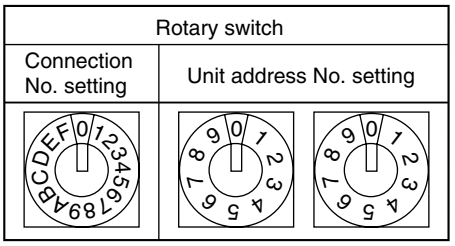
	Transmission cables	Remote controller cables
Type of cable	Shielding wire (2-core) CVVS or CPEVS	Sheathed 2-core cable (unshielded) CVV
Cable diameter	More than 1.25mm²	More than 0.75 to 1.25mm² (Recommendation : 0.75mm²)
Remarks	—	When 10m is exceeded, use cables with the same specification as transmission cables.

CVVS : PVC insulated PVC jacketed shielded control cable
CPEVS : PE insulated PVC jacketed shielded communication cable
CVV : PV insulated PVC sheathed control cable

1-4 Address setting

(1) Switch operation

In order to constitute CITY MULTI in a complete system, switch operation for setting the unit address No. and connection No. is required.



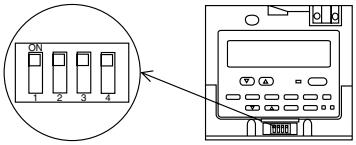
① Unit address No., group No. and connection No.
The unit address No. is determined by the address setting switch of the outdoor unit, indoor unit and remote controller.

② Caution for switch operations

- Be sure to shut off power source before switch setting. If operated with power source on, switch can not operate properly.
- No units with identical unit address shall exist in one system. If set erroneously, system can not operate.

③ MA remote controller

- When connecting only one remote controller to one group, it is always the main remote controller. When connecting two remote controllers to one group, set one remote controller as the main remote controller and the other as the sub remote controller.
- The factory setting is “Main”.

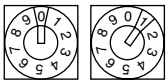
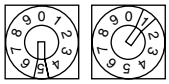
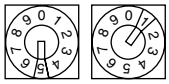
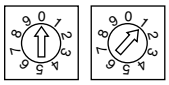
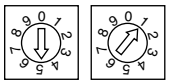
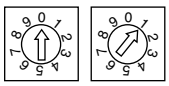
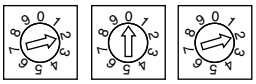
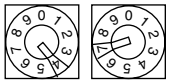


Setting the dip switches

The dip switches are at the bottom of the remote controller.
Remote controller Main/Sub and other function settings are performed using these switches.
Ordinarily, only change the Main/Sub setting of SW1. (The factory settings are all “ON”.)

SW No	SW contents Main	ON	OFF	Comment
1	Remote controller Main/Sub setting	Main	Sub	Set one of the two remote controllers at one group to “Main”.
2	When remote controller power turned on	Normally on	Timer mode on	When you want to return to the timer mode when the power is restored after a power failure when a Program timer is connected, select “Timer mode”.
3	Cooling/heating display in AUTO mode	Yes	No	When you do not want to display “Cooling” and “Heating” in the Auto mode, set to “No”.
4	Intake temperature display	Yes	No	When you do not want to display the inttake temprature, set to “No”.

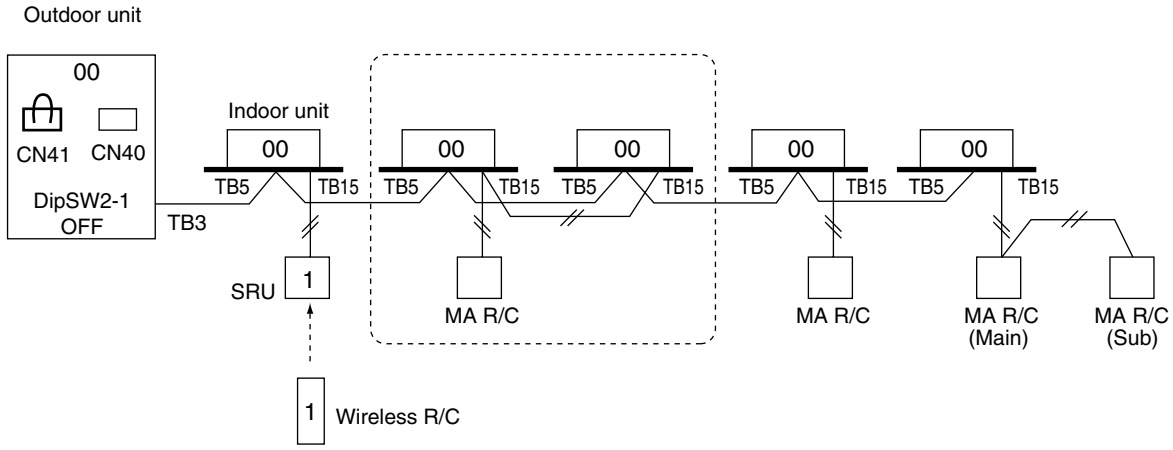
(2) Rule of address setting

Unit		Address setting	Example	Note
Indoor unit		01 ~ 50		
Outdoor unit Heat source unit		51 ~ 99, 100		The smallest address of indoor unit in same refrigerant system + 50 ※ The address automatically becomes "100" if it is set as "01~ 50"
BC controller		51 ~ 99, 100		The address of outdoor unit + 1 ※ The address automatically becomes "100" if it is set as "01~ 50"
Remote controller	M-NET Remote controller (Main) PAC-F27MEA	101 ~ 150	1 Fixed 	The smallest address of indoor unit in the group + 100 ※ The place of "100" is fixed to "1"
	M-NET Remote controller (Sub) PAC-F27MEA	151 ~ 199, 200	1 Fixed 	The address of main remote controller + 50 ※ The address automatically becomes "200" if it is set as "00"
	MA Remote controller	-	-	
	Group remote controller	201 ~ 250	2 Fixed 	The smallest group No. to be managed + 200
	Wireless remote controller	-	-	
	Programme timer	-	-	
Centralized controller	MJ-103	000, 201 ~ 250		
	MJ-180	-	-	
	MJ-310E	-	-	
	LMAP02-E	201 ~ 250	2 Fixed 	
	Gate way	-	-	

(3) System example

Setting of the switches when the units are shipped from the factory is as follows.
- Outdoor unit : Address : 00
  On CN41
  SW2-1: OFF
- Indoor unit : Address : 00
- Remote controller : Address : 100
- LMAP : Address : 247
  On CN41
  SW 1-2 : OFF

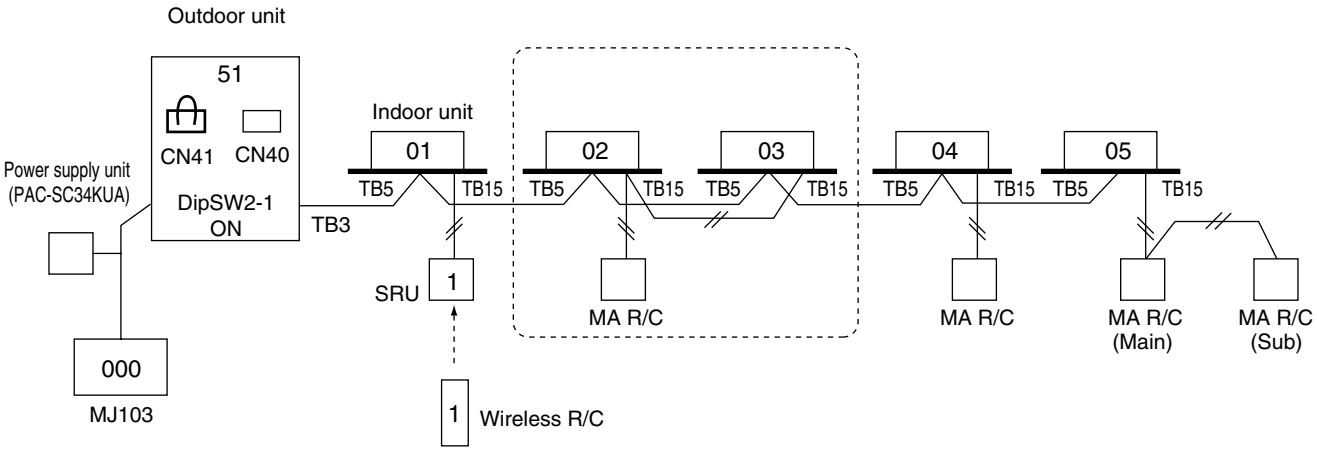
Example 1



MA R/C : PAR-20MAA
SRU(Signal receiving unit) : PAR-FA31MA
Wireless R/C : PAR-FL31MA

NOTE
- It is not necessary to set all of address.

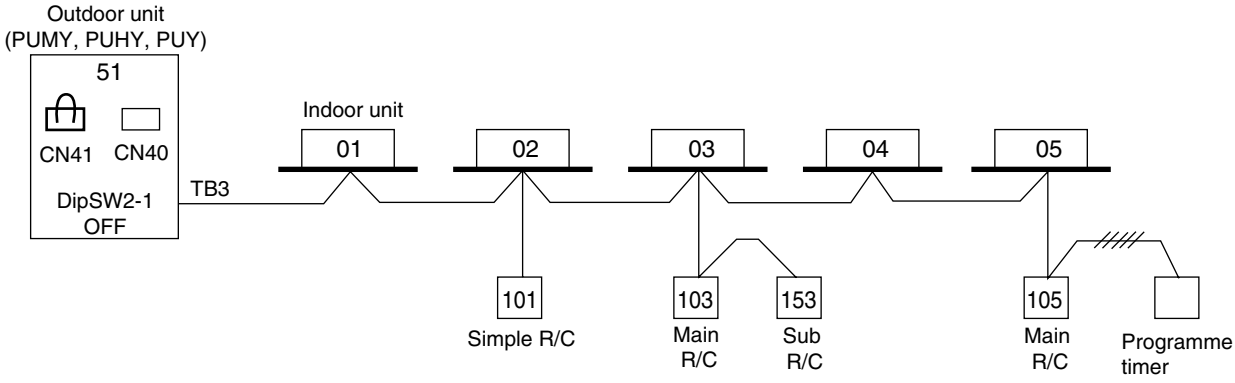
Example 2



MA R/C : PAR-20MAA
SRU(Signal receiving unit) : PAR-FA31MA
Wireless R/C : PAR-FL31MA
Programme timer : PAC-SC32PTA

NOTE
- It is necessary to set addresses indoor unit and outdoor unit with MJ103.

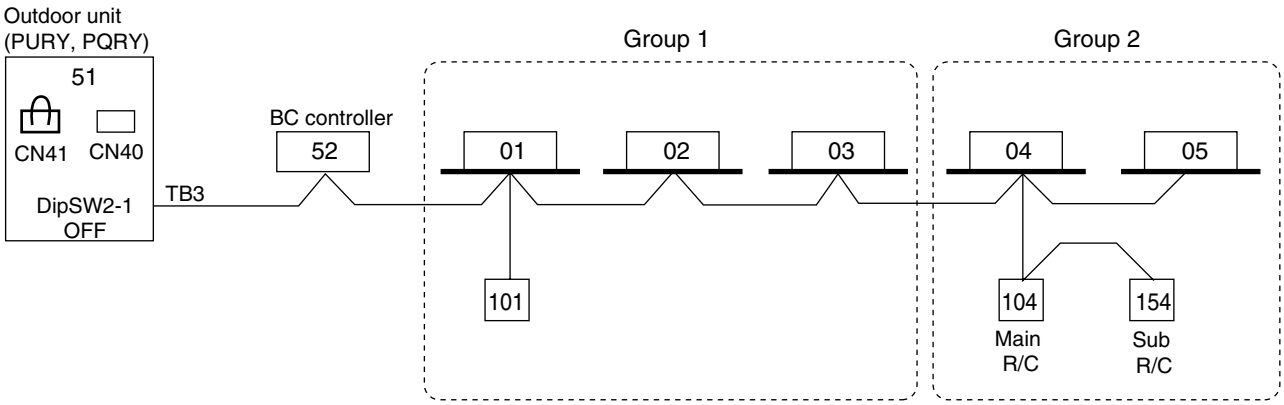
Example 3



Main R/C : PAR-F27MEA
Sub R/C : PAR-F27MEA
Programme timer : PAC-SC32PTA

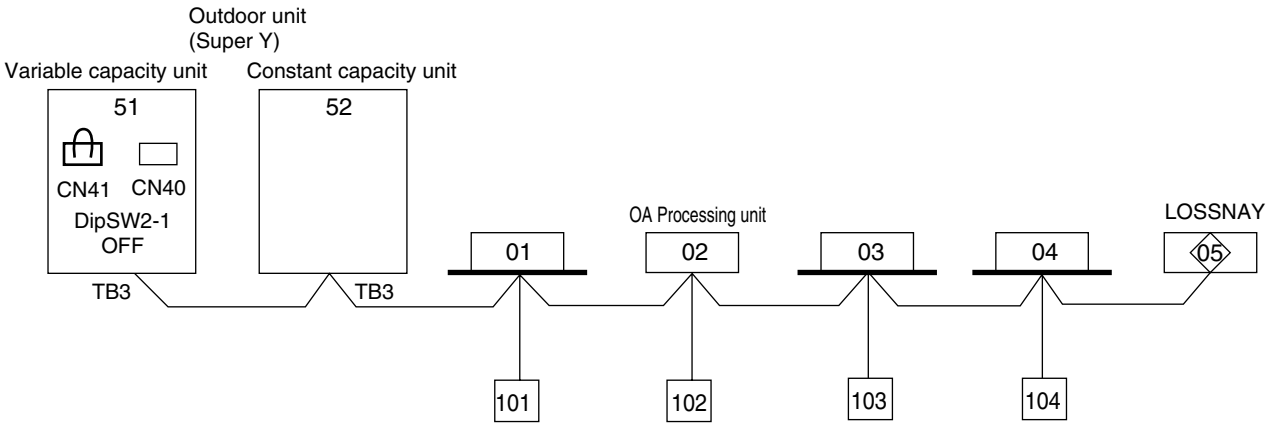
NOTE
- It is necessary to install the other polarity wires when the wireless R/C is used.

Example 4



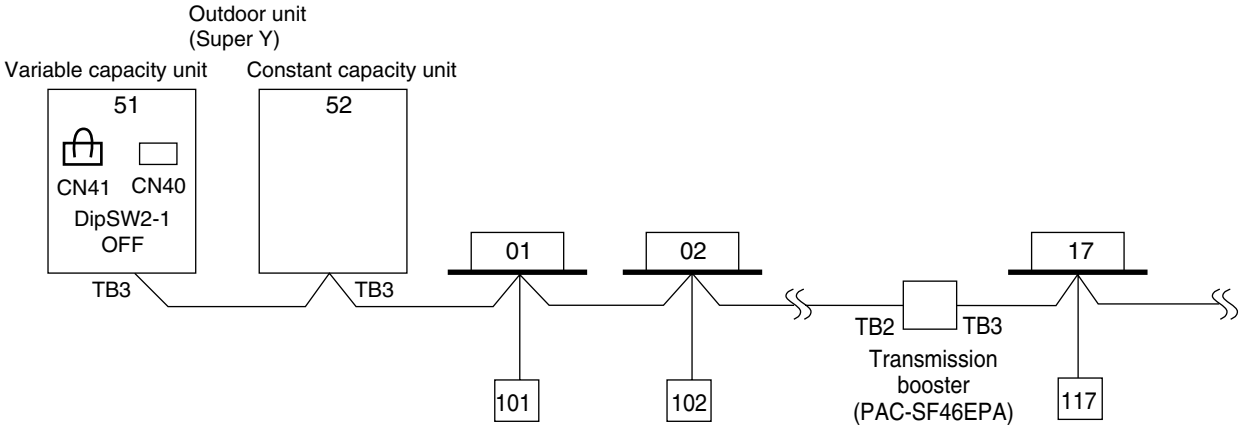
NOTE
- BC address = O/U address + 1
- R/C address = the smallest address of indoor unit + 100 in same group
- Sub R/C address = Main R/C address + 50

Example 5



NOTE
• Constant capacity unit address = Variable capacity unit address + 1

Example 6



Notes

The transmission booster (RP) is required when the number of connected indoor unit models in cooling system exceeds the number of models specified in the chart below.

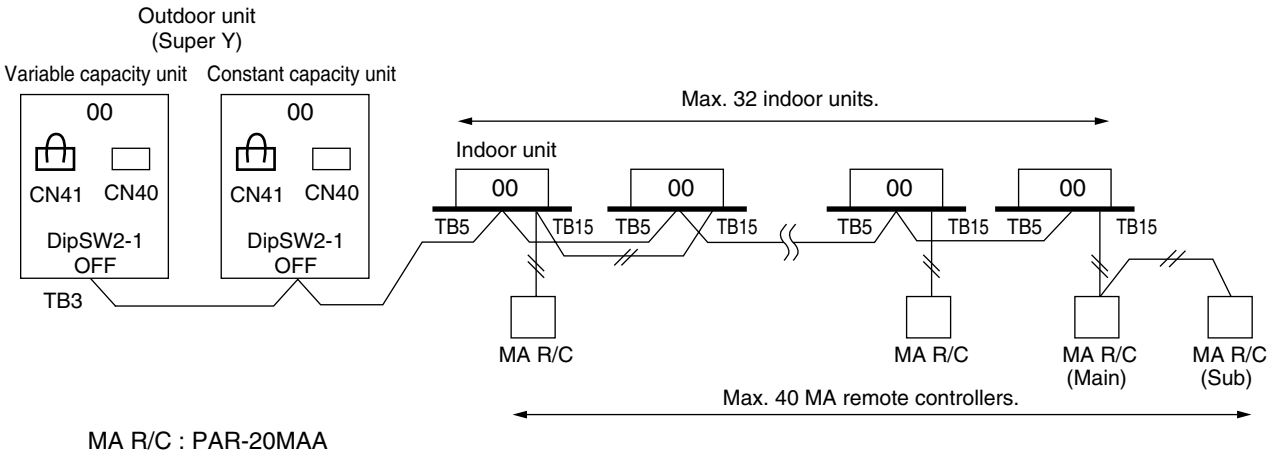
* The maximum number of units that can be controlled is determined by the indoor unit model, M-NET remote controller (PAR-F27MEA) and their capabilities.

(*1) Capability of the connected indoor units	F27MEA
Under 200	20(40)
Over 200	16(32)

The number of indoor units and the total number of remote controllers is displayed within the parenthesis ( ).

*1 If even one unit that is higher than 200 exists in the cooling system, the maximum capacity will be over 200.

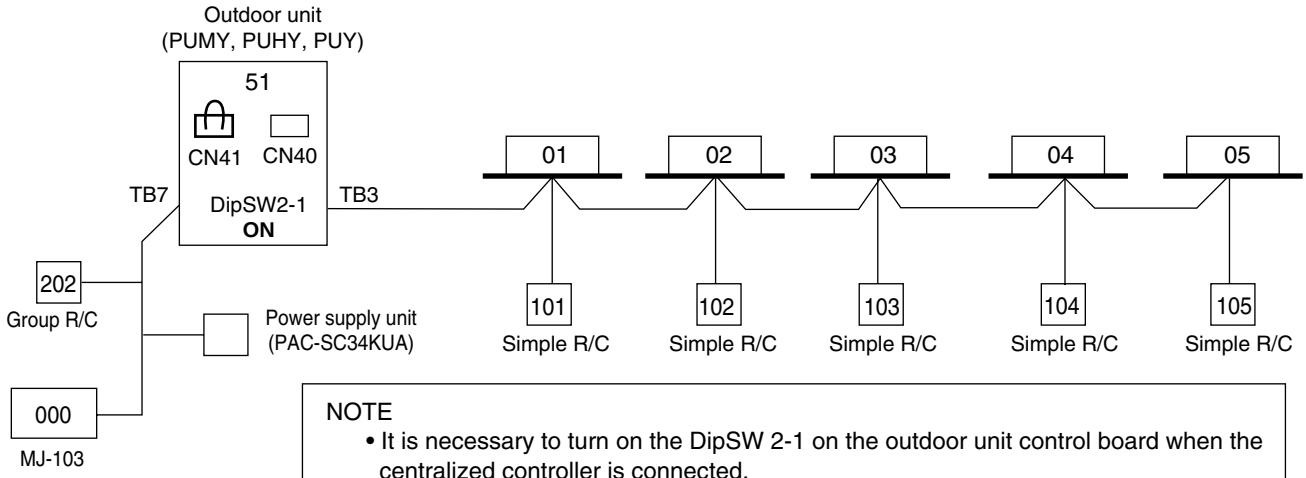
Example 7



MA R/C : PAR-20MAA

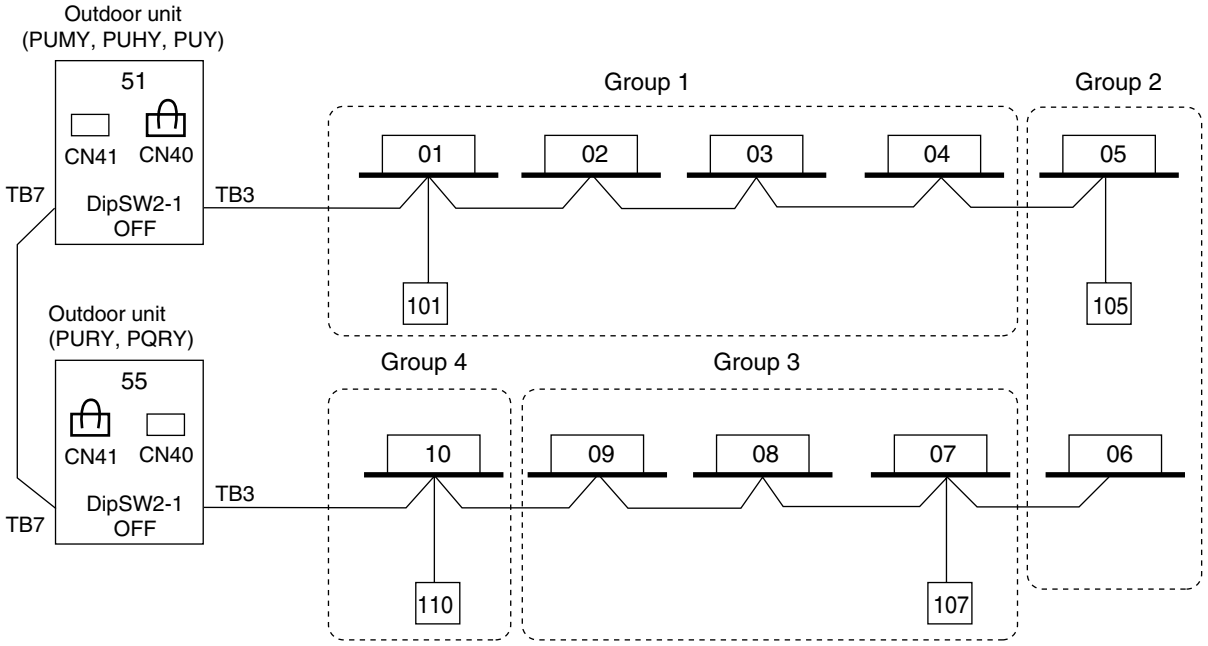
NOTE
- It is necessary to install the tramission booster on the MA remote contoroller system.

Example 8



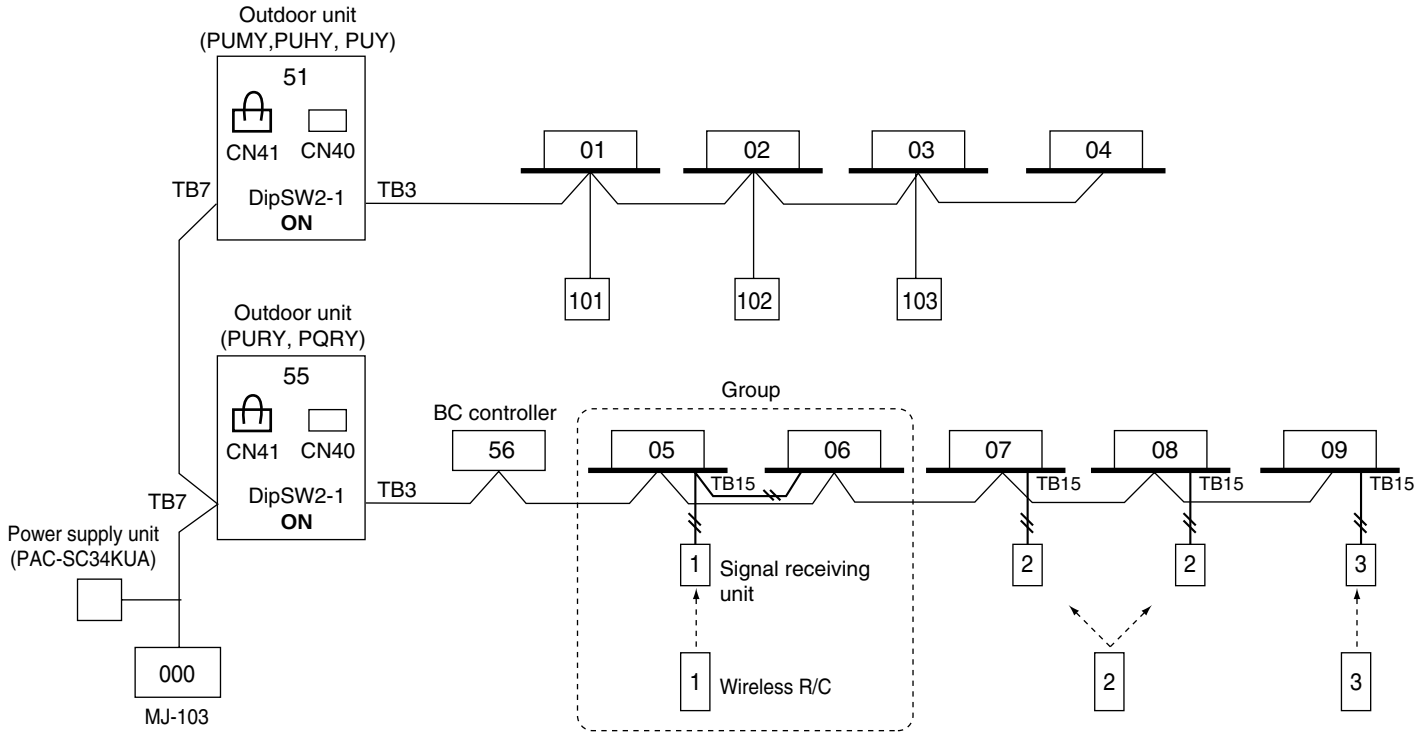
NOTE
- It is necessary to turn on the DipSW 2-1 on the outdoor unit control board when the centralized controller is connected.
- Be sure to connect other controllers (Ex. MJ-103) when the simple R/C is used because the running mode can not be changed by simple R/C.

Example 9

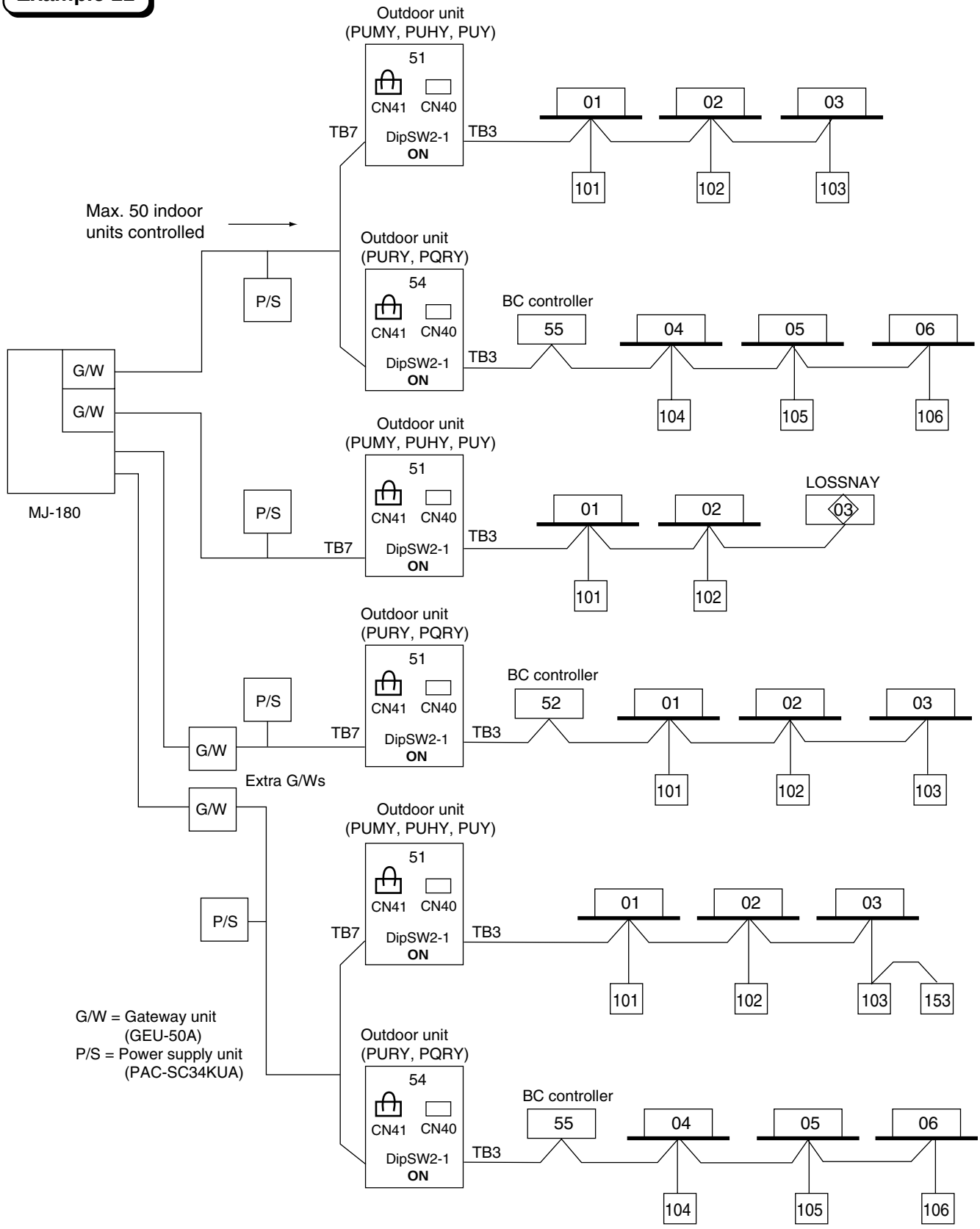


NOTE
- It is necessary to change the connecter to CN40 on the outdoor unit control board (only one outdoor unit) when the group is set between other refrigerant systems.

Example 10

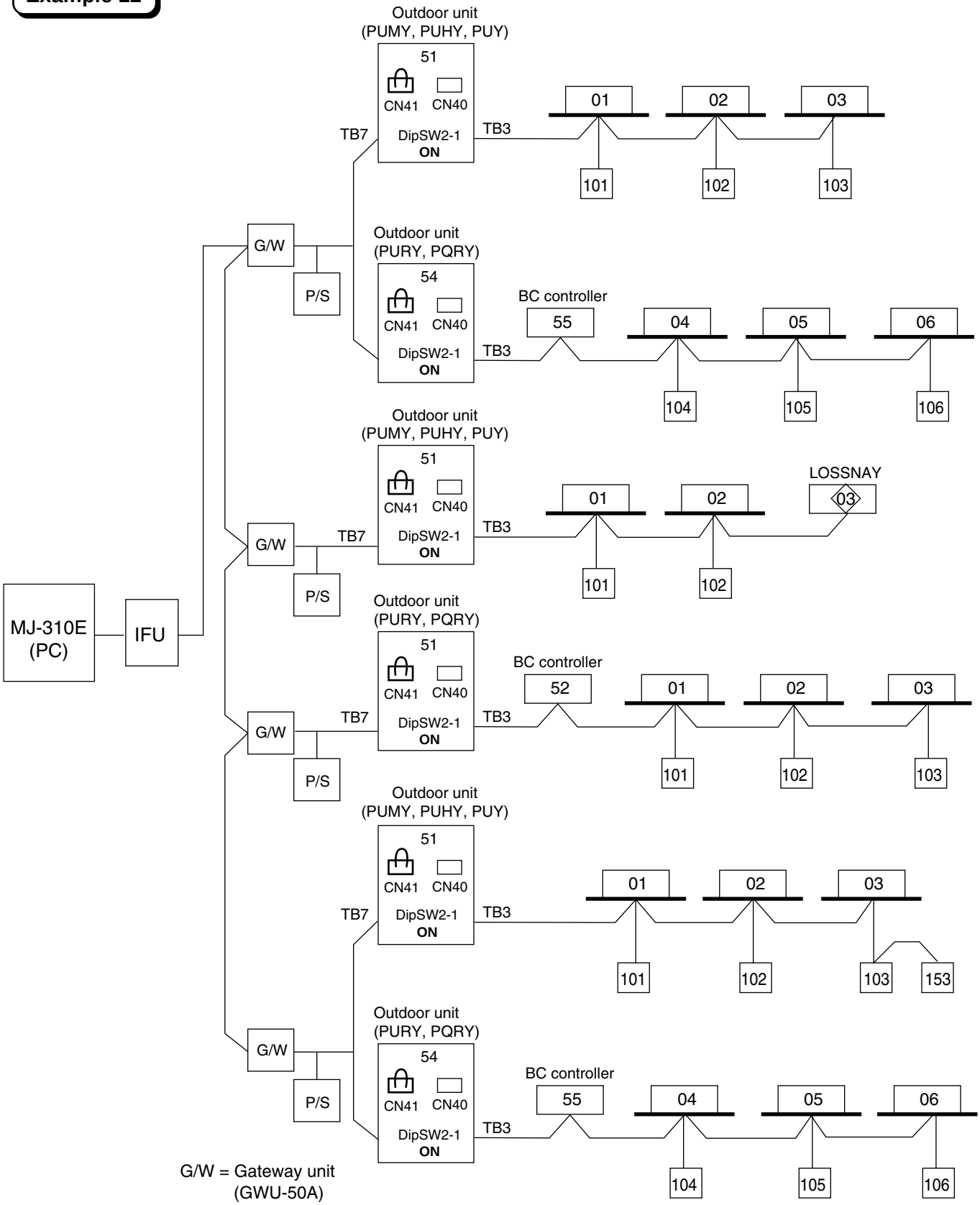


Example 11



NOTE
- Gateway unit (GWU-50A) can control 50 indoor units.
- 2 G/Ws are included in the MJ-180.
- MJ-180 can have 2 extra G/Ws.
- MJ-180 ca be control 200 indoor units. (with 2 extra G/Ws)

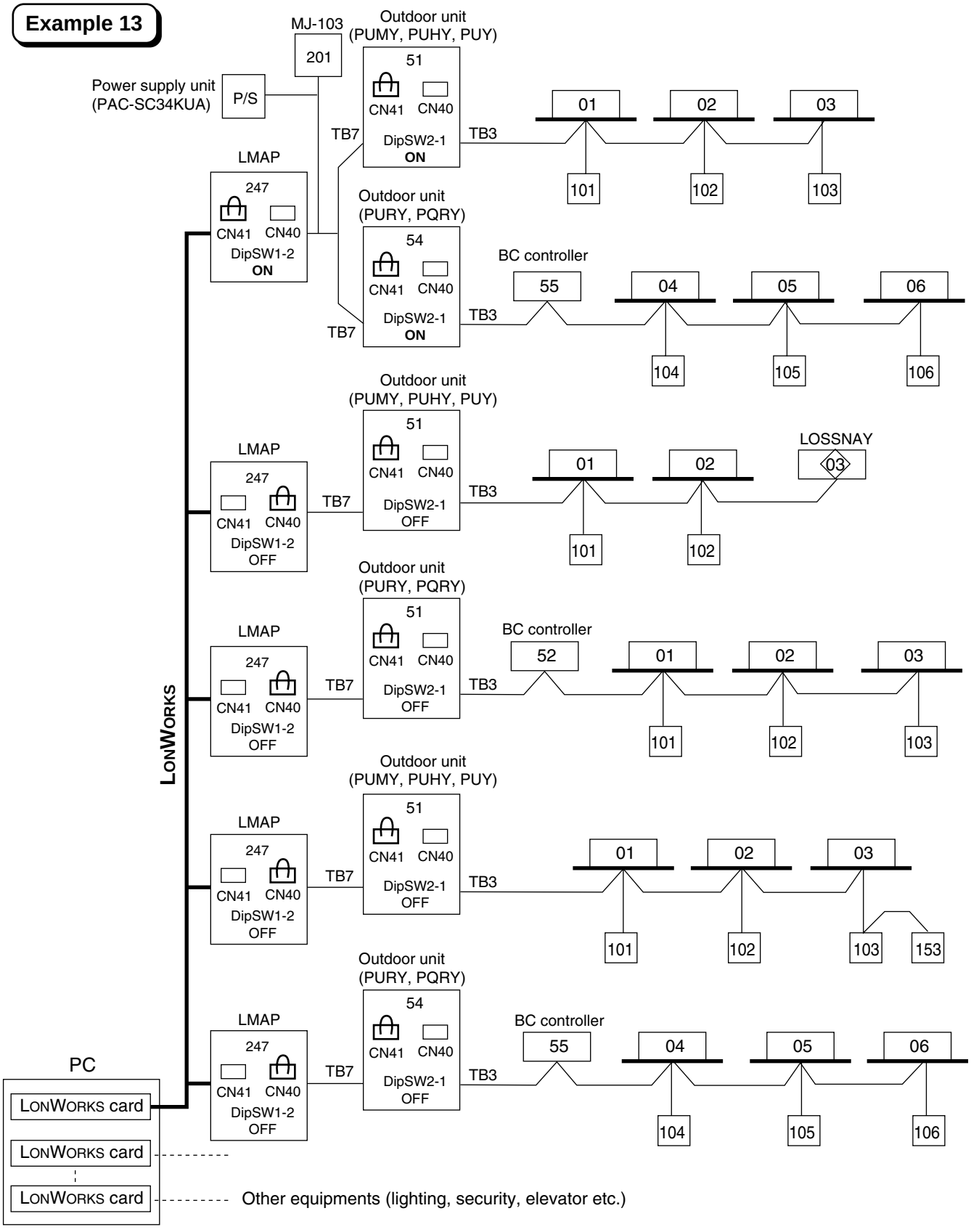
Example 12



G/W = Gateway unit
(GWU-50A)
IFU = Serial interface unit
(IFU-1000A)
P/S = Power supply unit
(PAC-SC34KUA)

NOTE
- Gateway unit (GWU-50A) can control 50 indoor units.
- MJ-310E can control 20 G/Ws.
- MJ-310E can control 1000 indoor units.

Example 13



NOTE

- LMAP (LMAP02-E) can control 50 indoor units.
- LONWORKS card can control 5 LMAPs.
- It is necessary to turn on the DipSW1-2 on the LMAP control board and the DipSW2-1 on the outdoor unit control board with centralized controllers (Power supply unit).
- It is necessary to change the connector to CN40 on the LMAP control board without centralized controllers (Power supply unit).

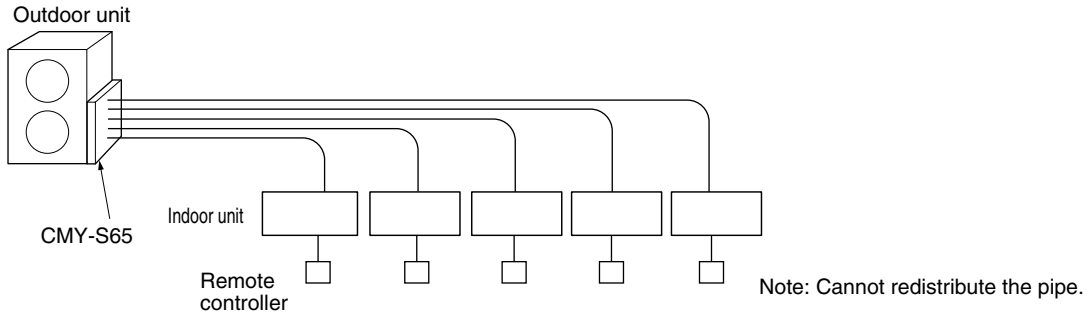
2. Refrigerant & Piping

2-1 System examples

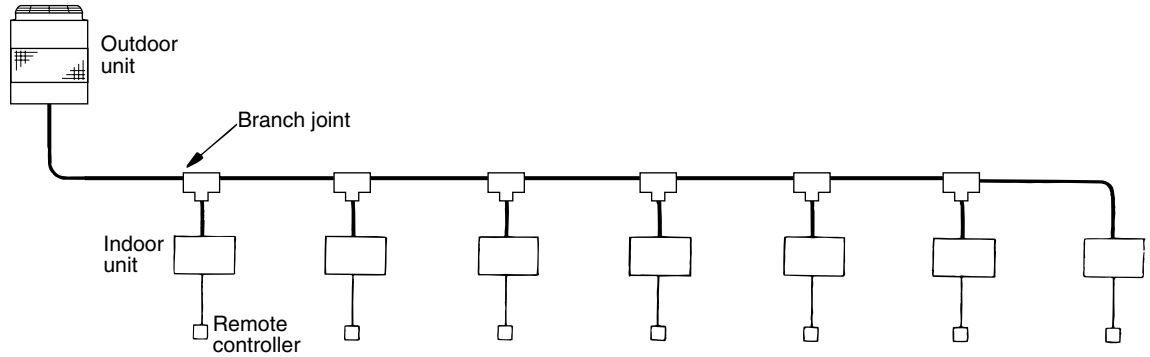
Using line branches, header branches and combinations of these branches, a "free piping system" involving minimal restrictions can be configured to give a free hand in indoor and outdoor unit refrigerant piping design.

① PUMY, PUHY, PUY

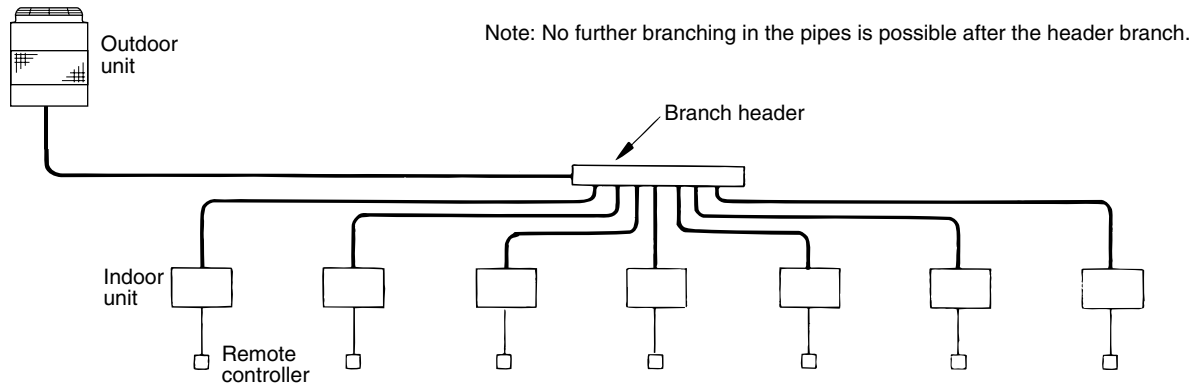
Multi-distribution system (PUMY only)



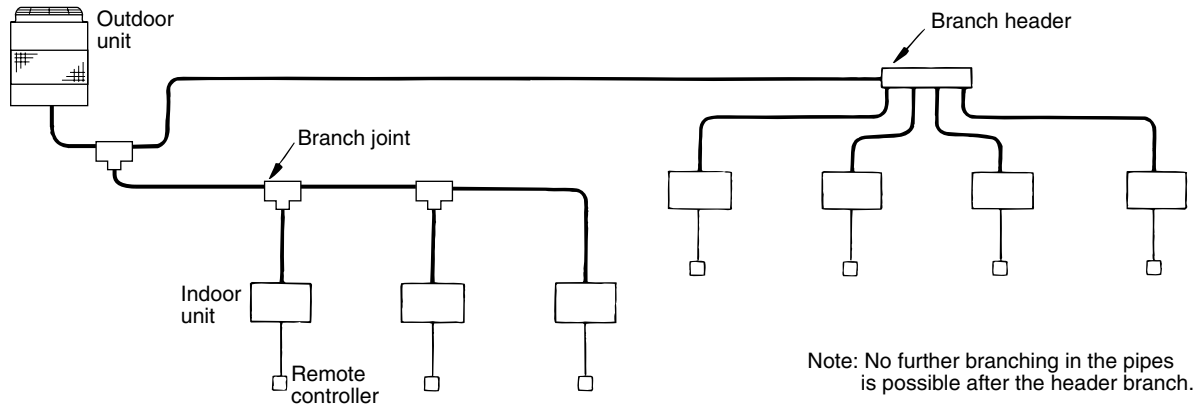
Line branching system



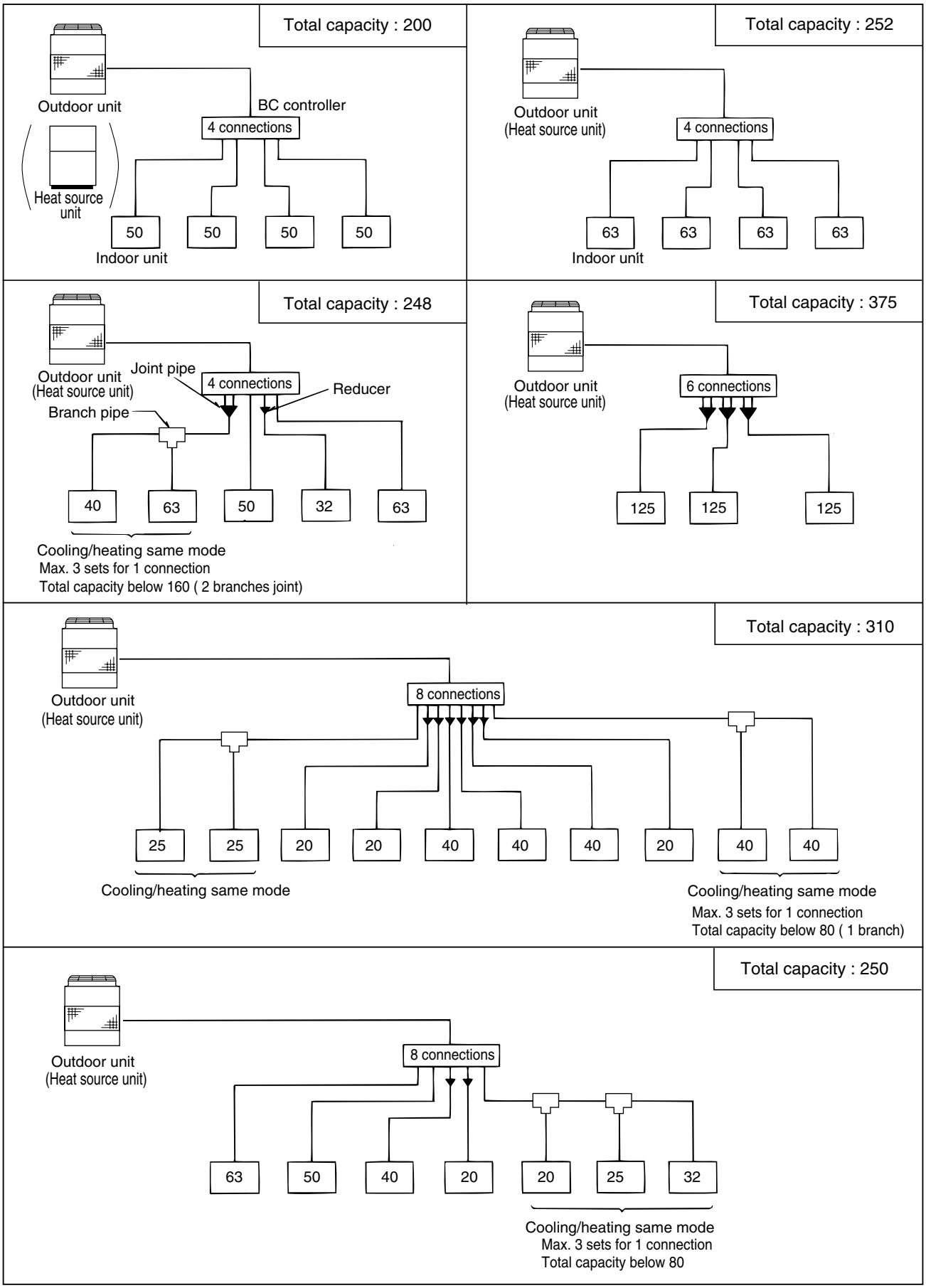
Header branching system


Note: No further branching in the pipes is possible after the header branch.
Outdoor unit
Branch header
Indoor unit
Remote controller

Combined line / header branching system



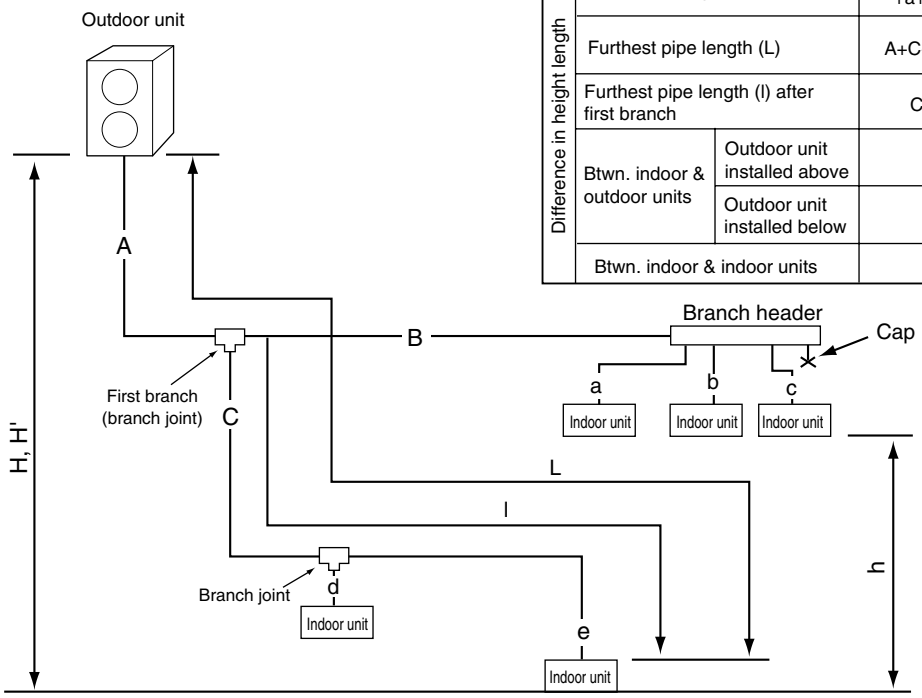
② PURY, PQRY

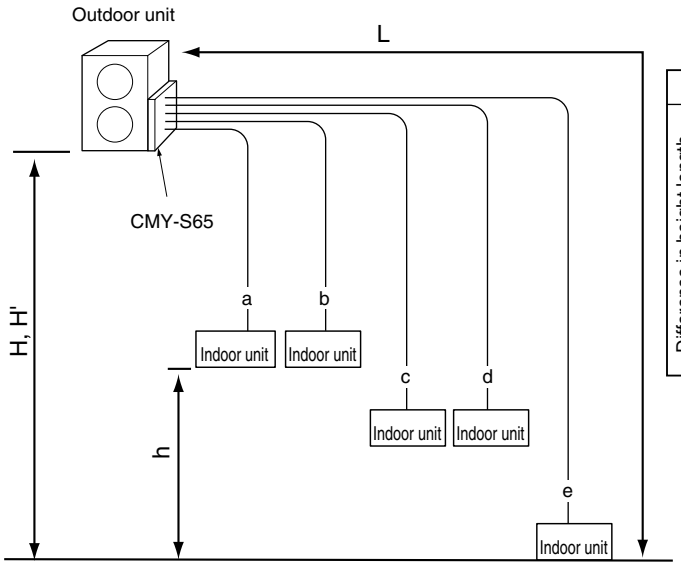

Total capacity : 200
Outdoor unit
BC controller
4 connections
Heat source unit
50
50
50
50
Indoor unit
Total capacity : 252
Outdoor unit
(Heat source unit)
4 connections
63
63
63
63
Indoor unit
Total capacity : 248
Outdoor unit
(Heat source unit)
Joint pipe
4 connections
Reducer
Branch pipe
40
63
50
32
63
Cooling/heating same mode
Max. 3 sets for 1 connection
Total capacity below 160 (2 branches joint)
Total capacity : 375
Outdoor unit
(Heat source unit)
6 connections
125
125
125
Total capacity : 310
Outdoor unit
(Heat source unit)
8 connections
25
25
20
20
40
40
40
20
40
40
Cooling/heating same mode
Cooling/heating same mode
Max. 3 sets for 1 connection
Total capacity below 80 (1 branch)
Total capacity : 250
Outdoor unit
(Heat source unit)
8 connections
63
50
40
20
20
25
32
Cooling/heating same mode
Max. 3 sets for 1 connection
Total capacity below 80

2-2 Restrictions on refrigerant piping lengths

① PUMY

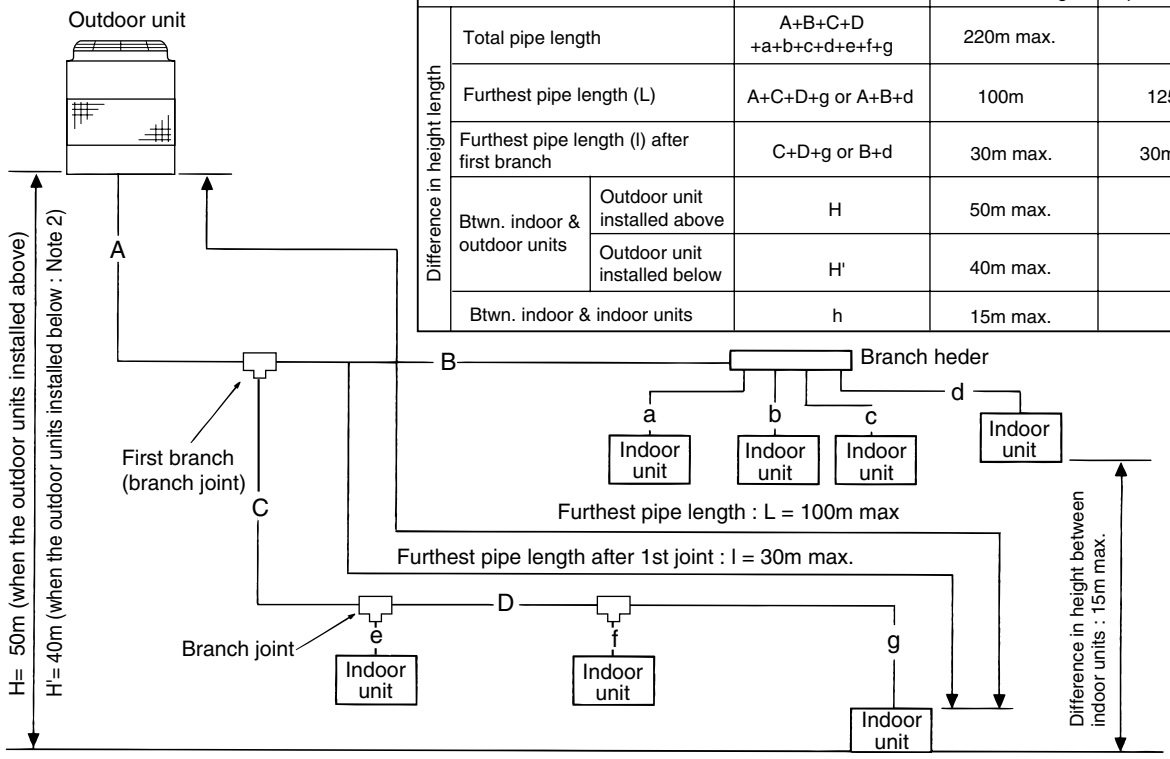
Item			Pipe section	Allowable length
Difference in height length	Total pipe length		A+B+C +a+b+c+d+e	100m max.
	Furthest pipe length (L)		A+C+e or A+B+c	50m max.
	Furthest pipe length (l) after first branch		C+e or B+c	30m max.
	Btwn. indoor & outdoor units	Outdoor unit installed above	H	30m max.
		Outdoor unit installed below	H'	20m max.
	Btwn. indoor & indoor units		h	12m max.





Item			Pipe section	Allowable length
Difference in height length	Total pipe length		a+b+c+d+e	100m max.
	Furthest pipe length (L)		e	50m max.
	Btwn. indoor & outdoor units	Outdoor unit installed above	H	30m max.
		Outdoor unit installed below	H'	20m max.
	Btwn. indoor & indoor units		h	12m max.

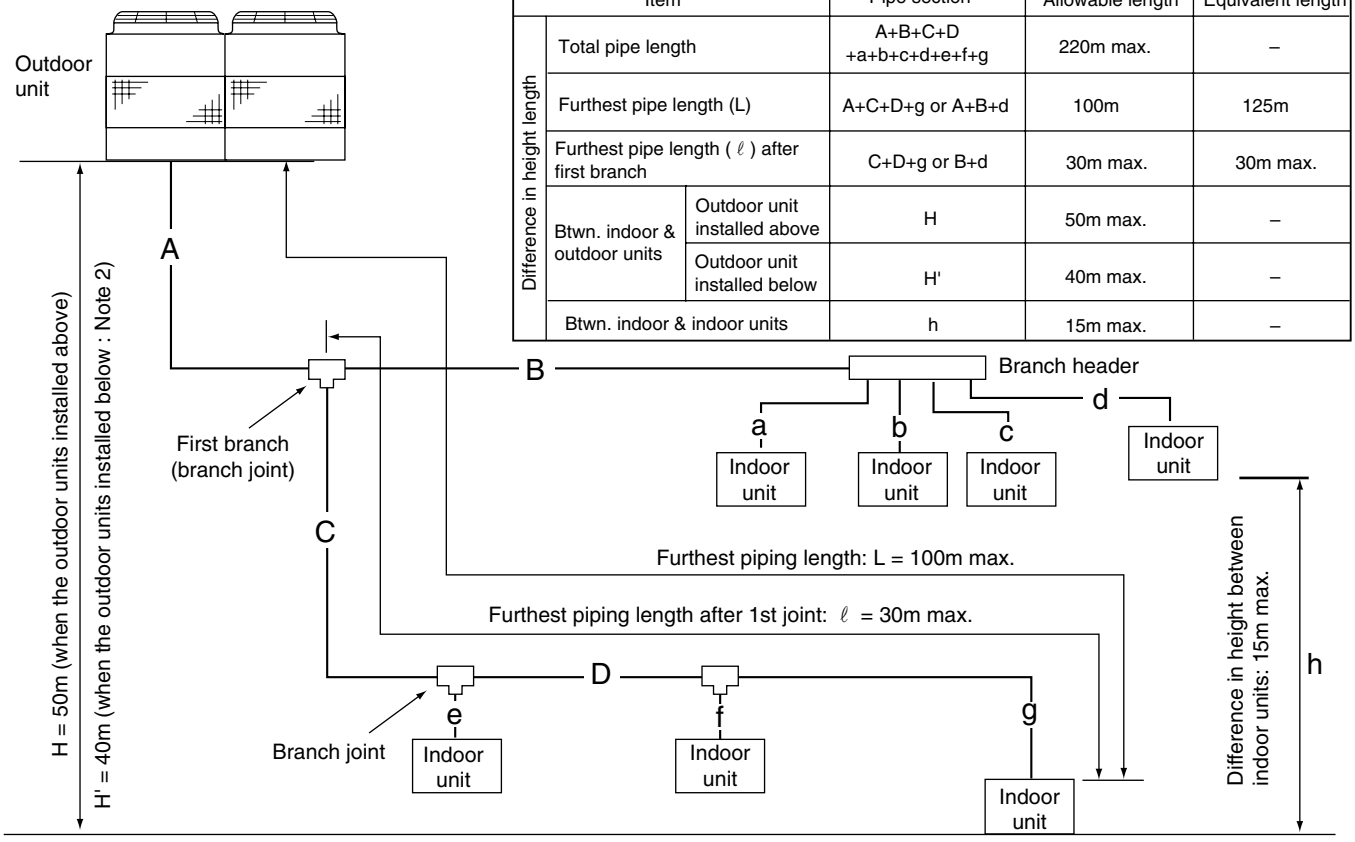
② PU(H)Y-(P)200·250·315



Item			Pipe section	Allowable length	Equivalent length
Difference in height length	Total pipe length		A+B+C+D +a+b+c+d+e+f+g	220m max.	–
	Furthest pipe length (L)		A+C+D+g or A+B+d	100m	125m
	Furthest pipe length (l) after first branch		C+D+g or B+d	30m max.	30m max.
	Btwn. indoor & outdoor units	Outdoor unit installed above	H	50m max.	–
		Outdoor unit installed below	H'	40m max.	–
	Btwn. indoor & indoor units		h	15m max.	–

Notes: 1. No further branching in the pipes is possible after the header branch.
2. When cooling operation is performed when the outdoor temp. is 10˚C or lower (PUHY-P200·250YMF-C : 0˚C or lower) : H'= 4m or less.
3. Equivalent pipe length (m) : Actual pipe length + model 200 : 0.47 / model 250 : 0.50 / model 315 : 0.70 × number of bent.

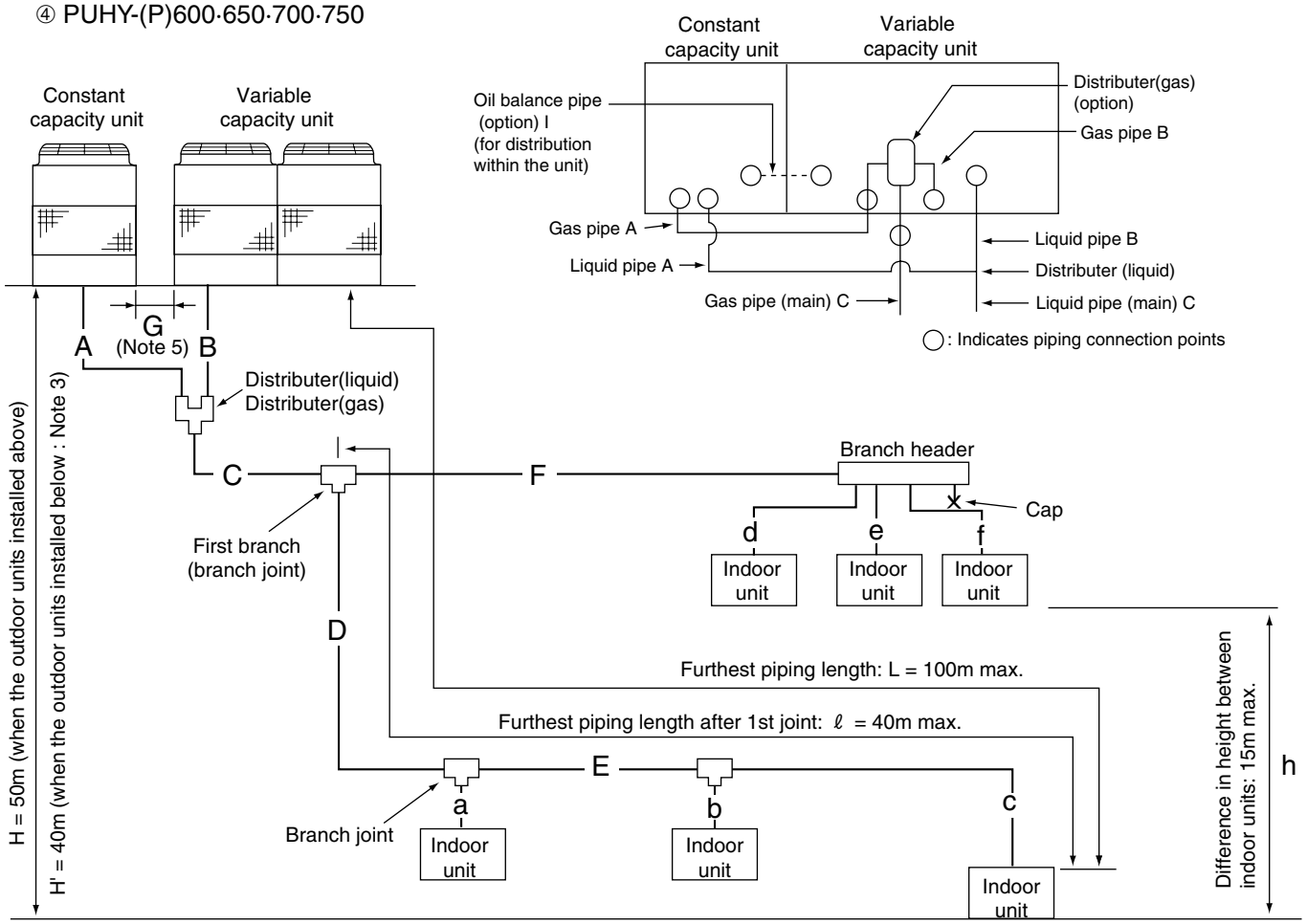
③ PUHY-(P)400·500



Item			Pipe section	Allowable length	Equivalent length
Difference in height length	Total pipe length		A+B+C+D +a+b+c+d+e+f+g	220m max.	–
	Furthest pipe length (L)		A+C+D+g or A+B+d	100m	125m
	Furthest pipe length (ℓ) after first branch		C+D+g or B+d	30m max.	30m max.
	Btwn. indoor & outdoor units	Outdoor unit installed above	H	50m max.	–
		Outdoor unit installed below	H'	40m max.	–
	Btwn. indoor & indoor units		h	15m max.	–

Notes: 1. No further branching in the pipes is possible after the header branch.
2. When cooling operation is performed when the outdoor temp. is 10˚C or lower : H'= 4m or less.
3. Equivalent pipe length (m) : Actual pipe length + model 400 : 0.70 / model 500 : 0.80 × number of bent.

④ PUHY-(P)600·650·700·750



Notes: 1. Connect the variable capacity unit and constant capacity unit with CMC-30A in the filed.

2. Mount the constant capacity unit on the left and variable capacity unit on the right. (as seen from the front of the unit)

3. When cooling operation is performed when the outdoor temp. is 10˚C or lower : H'= 4m or less.

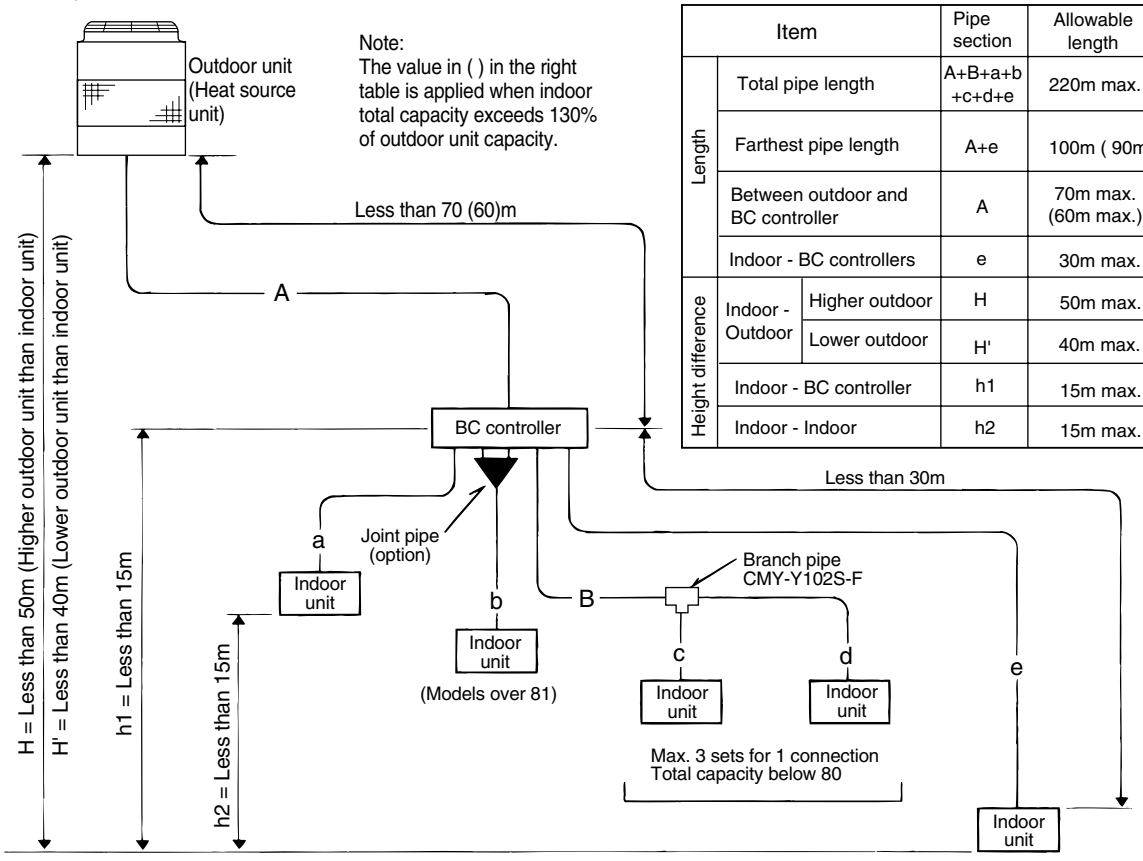
4. Equivalent pipe length (m) : Actual pipe length + { **model 600 : 0.80**
model 650 : 0.95
model 700 : 0.95
model 750 : 0.95 } **× number of bent.**

5. Set the constant capacity unit and variable capacity unit in accordance with the G dimension given in the figure above. (G = 0.01m)

6. No further branching in the pipes is possible after the header branch.

Item			Pipe section	Allowable length	Equivalent length
Difference in height length	Total pipe length		A+B+C+D+E+F +a+b+c+d+e+f	220m max.	–
	Furthest pipe length (L)		A(B)+C+D+E+c	100m max	125m
	Furthest pipe length (ℓ) after first branch		D+E+c	40m max.	–
	Oil balance pipe		I	The oil balance pipe (CMC-30A : option) must be used. If any other piping is used, the length of the oil balance pipe must be no more than 3m (max. equivalent length 4m), and height from the bottom of the unit must be no more than 0.1m.	–
	Btwn. distributer (liquid) & variable capacity unit, constantcapacity unit		A, B (Liquid line)	4m max.	5m
	Btwn. distributer (gas) & constantcapacity unit		A (Gas line)	4m max.	5m
	Btwn. indoor & outdoor units	Outdoor unit installed above	H	50m max.	–
		Outdoor unit installed below	H'	40m max.	–
	Btwn. indoor & indoor units		h	15m max.	–
	Btwn. variable capacity unit & constant capacity unit		–	Must be installed on same frame, and there must be no high/low difference.	–

⑤ PURY, PQRY

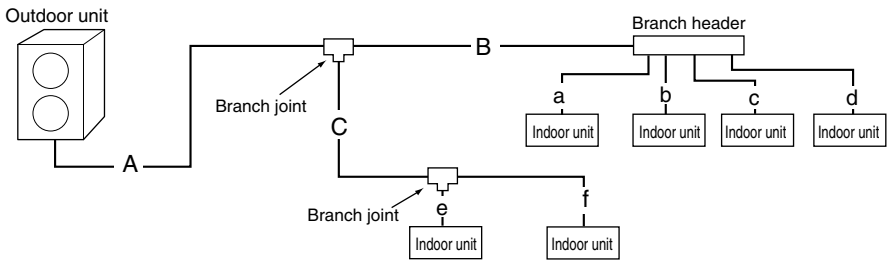


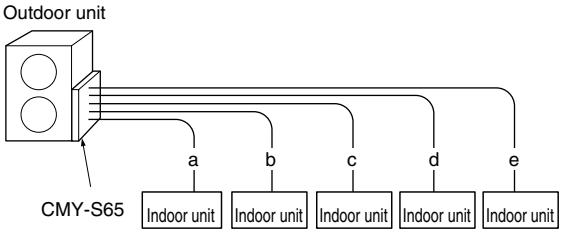
Item			Pipe section	Allowable length	Equivalent length
Length	Total pipe length		A+B+a+b +c+d+e	220m max.	–
	Farthest pipe length		A+e	100m (90m)	125m (115m)
	Between outdoor and BC controller		A	70m max. (60m max.)	70m max. (60m max.)
	Indoor - BC controllers		e	30m max.	30m max.
Height difference	Indoor - Outdoor	Higher outdoor	H	50m max.	–
		Lower outdoor	H'	40m max.	–
	Indoor - BC controller		h1	15m max.	–
	Indoor - Indoor		h2	15m max.	–

Equivalent pipe length (m) : Actual pipe length + $\begin{matrix}\text{model 200 : 0.47}\\ \text{model 250 : 0.50}\end{matrix}$ × number of bent.

2-3 Refrigerant piping selection

① PUMY





Note : • No further branching is possible after the header branch.
• Model 100 and 125 of indoor unit can not be connected with CMY-Y68.

(1) Outdoor unit - 1st branch (Pipe A)

Outdoor unit model	Liquid pipe	Gas pipe
PUMY-125	ø 9.52 X 0.8t	ø 19.05 X 1.0t

(2) Branch joint / Header

Type of branch pipe	Total capacity of indoor units	Branch pipe model
Joint	-	CMY-Y62-C-E
Header	For 4 branches	CMY-Y64-C
	For 8 branches	CMY-Y68
Multi-distribution pipe	For 5 branches	CMY-S65

(3) Branch - Branch (Pipe B,C)

Total capacity of indoor units	Liquid pipe	Gas pipe
~ 80	ø9.52 X 0.8t	ø15.88 X 1.0t
81 ~	ø9.52 X 0.8t	ø19.05 X 1.0t

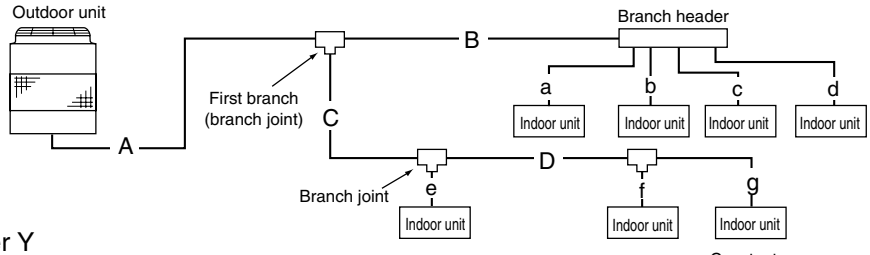
(4) Branch - Indoor unit (Pipe a, b, c, d, e, f)

Indoor unit model	Liquid pipe	Gas pipe
20,25,32,40	ø6.35 X 0.8t	ø12.7 X 0.8t
50,63,71,80	ø9.52 X 0.8t	ø15.88 X 1.0t
100,125	ø9.52 X 0.8t	ø19.05 X 1.0t

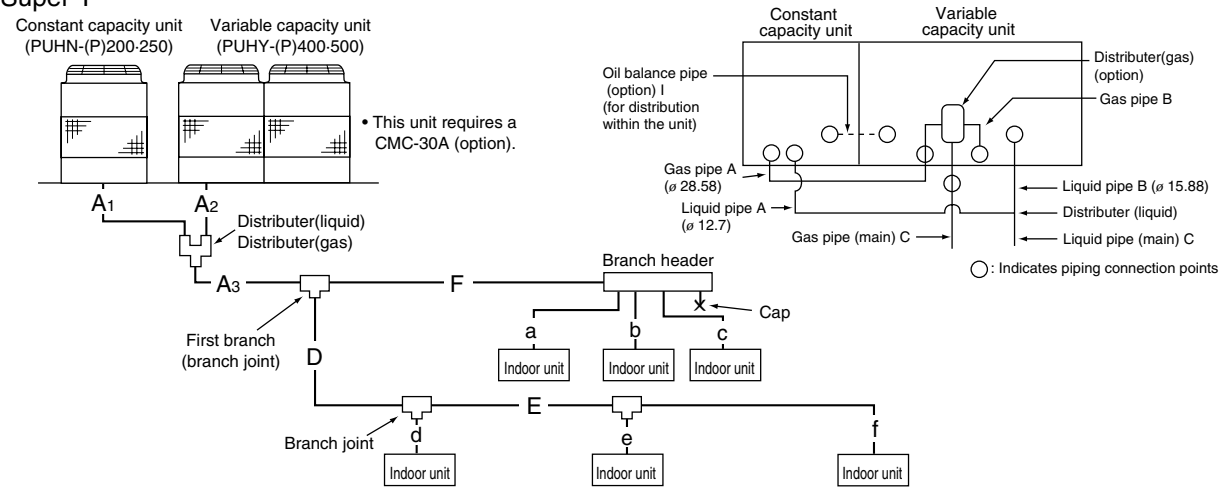
• Indoor unit capacities
The capacity of an indoor unit is the same as the number used for its type identification.
Examples:
PEFY-P63VM → Capacity = 63

※ The thickness of pipe is Japanese Standard. Please choose the thickness according to your country standard referring to above chart.

②PUHY, PUY



• Super Y



Note : • No further branching is possible after the header branch.
• Arrange the total capacity of the indoor units less than 330, connected on the downstream side by the header branch. It over that, branch pipes on the upstream side using the branch joint.
• Model 200 and 250 can not be connected with header branch.
• Model 20 can not be connected with PUHY-(P) 315, 400, 500, 600, 650, 700, 750.
• Always select CMY-202-F for the first branch of PUHY-(P) 400, 500.
• Always select CMY-302-F for the first branch of PUHY-(P) 600, 650, 700, 750.

(1) Outdoor unit - 1st branch (Pipe A,A_1,A_2,A_3)

Outdoor unit model	Liquid pipe	Gas pipe
PU(H)Y-(P)200	ø 12.7 X 0.8t	*ø 25.4 X 1.3t
PUHN-(P)200	ø 12.7 X 0.8t	ø 28.58 X 1.45t
PU(H)Y-(P)250 PUHN-(P)250	ø 12.7 X 0.8t	ø 28.58 X 1.45t
PUHY-315	ø 15.88 X 1.0t	ø 31.75 X 1.6t
PUHY-400YMC	ø 15.88 X 1.0t	ø 31.75 X 1.6t
PUHY-(P)400YMF-B	ø 15.88 X 1.0t	ø 34.93 X 1.75t
PUHY-500YMC	ø 15.88 X 1.0t	ø 38.1 X 1.9t
PUHY-(P)500YMF-B	ø 15.88 X 1.0t	ø 34.93 X 1.75t
PUHY-600YSMC	ø 19.05 X 1.0t	ø 38.1 X 1.9t
PUHY-(P)600YSMF-B	ø 19.05 X 1.0t	ø 34.93 X 1.75t
PUHY-(P)650	ø 19.05 X 1.0t	ø 41.28 X 2.1t
PUHY-(P)700	ø 19.05 X 1.0t	ø 41.28 X 2.1t
PUHY-(P)750	ø 19.05 X 1.0t	ø 41.28 X 2.1t

* The pipe of 28.58mm can be used for the gas pipe of PU(H)Y-(P)200.

(2) Branch joint / Header

Type of branch pipe	Total capacity of indoor units	Branch pipe model
Joint	~ 160	CMY-Y102S-F
	161 ~ 330	CMY-Y102L-F
	331 ~ 630	CMY-Y202-F
	The 1st branch of PUHY-(P)315, 400, 500, 600	
	631 or above	CMY-Y302-F
	The 1st branch of PUHY-(P)650, 700, 750	
	PUHY-(P)600, 650, 700, 750	CMC-30A
Header	For 4 branches	CMY-Y104-E
	For 7 branches	CMY-Y107-E
	For 10 branches	CMY-Y1010-E

(3) Branch - Branch (Pipe B,C,D,E,F)

Total capacity of indoor units	Liquid pipe	Gas pipe
~ 80	ø9.52 X 0.8t	ø15.88 X 1.0t
81 ~ 160	ø12.7 X 0.8t	ø19.05 X 1.0t
161 ~ 330	ø12.7 X 0.8t	**ø25.4 X 1.3t
331 ~ 480	ø15.88 X 1.0t	ø31.75 X 1.6t or ø34.93 X 1.75t
481 ~ 630	ø15.88 X 1.0t	ø38.1 X 1.9t or ø34.93 X 1.75t
631 ~	ø19.05 X 1.0t	ø41.28 X 2.1t

** The pipe of 28.58mm can be used for the gas pipe of PU(H)Y-(P)200.

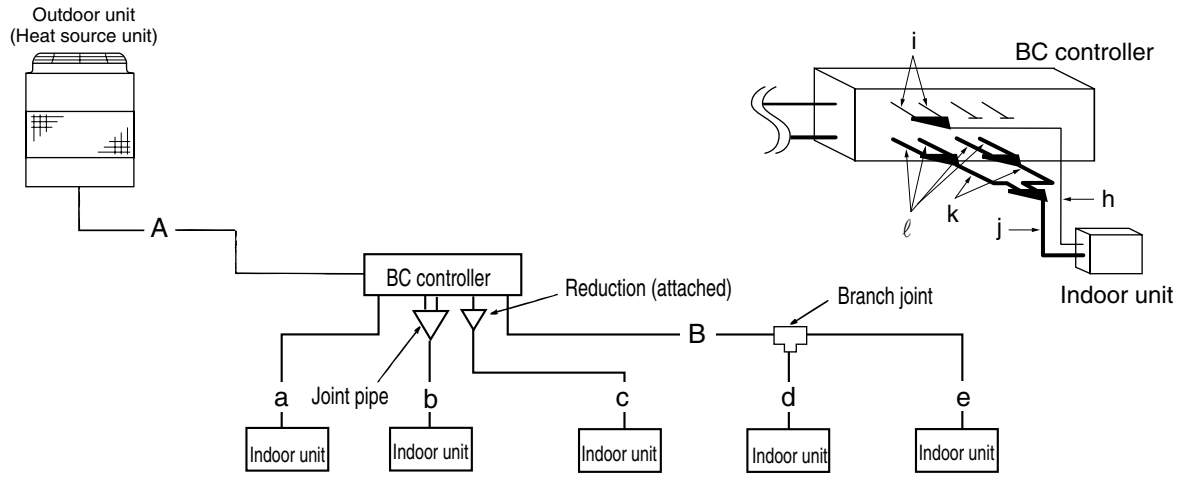
※ The thickness of pipe is Japanese Standard.
Please choose the thickness according to your country standard referring to above chart.

(4) Branch - Indoor unit (Pipe a, b, c, d, e, f, g)

Indoor unit model	Liquid pipe	Gas pipe
20,25,32,40	ø6.35 X 0.8t	ø12.7 X 0.8t
50,63,71,80	ø9.52 X 0.8t	ø15.88 X 1.0t
100,125,140	ø9.52 X 0.8t	ø19.05 X 1.0t
200	ø12.7 X 0.8t	ø25.4 X 1.3t
250	ø12.7 X 0.8t	ø28.58 X 1.3t

• Indoor unit capacities
The capacity of an indoor unit is the same as the number used for its type identification.
Examples:
PEFY-P63VM → Capacity = 63

③PURY, PQRY



Note : Model 200 and 250 of indoor unit can not be connected with BC controller.

(1) Outdoor unit - BC controller (Pipe A)

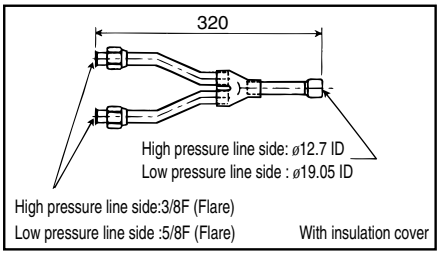
Outdoor unit model	High press. pipe	Low press. pipe
PURY-(P)200 PQRY-P200	ø 19.05 X 1.0t	*ø 25.4 X 1.3t
PURY-(P)250 PQRY-P250	ø 19.05 X 1.0t	ø 28.58 X 1.45t

* The pipe of 28.58mm can be used for the gas pipe of (P)200.

(2) Branch joint

Total capacity of indoor units	Liquid pipe	Gas pipe
~ 80	ø9.52 X 0.8t	ø15.88 X 1.0t
81 ~ 160	ø9.52 X 0.8t	ø19.05 X 1.0t

• Joint pipe CMY-R160-F


320
High pressure line side: ø12.7 ID
Low pressure line side : ø19.05 ID
High pressure line side:3/8F (Flare)
Low pressure line side :5/8F (Flare)
With insulation cover

(3) BC controller - Branch (Pipe B)

Total capacity of indoor units	Liquid pipe	Gas pipe
~ 80	ø9.52 X 0.8t	ø15.88 X 1.0t
81 ~ 160	ø9.52 X 0.8t	ø19.05 X 1.0t

(4) Branch or BC controller - Indoor unit (Pipe a,b,c,d,e,f,g)

Indoor unit model	Liquid pipe	Gas pipe
20,25,32,40	ø6.35 X 0.8t	ø12.7 X 0.8t
50,63,71,80	ø9.52 X 0.8t	ø15.88 X 1.0t
100,125,140	ø9.52 X 0.8t	ø19.05 X 1.0t

※ The thickness of pipe is Japanese Standard. Please choose the thickness according to your country standard referring to above chart.

• Indoor unit capacities
The capacity of an indoor unit is the same as the number used for its type identification.
Examples:PEFY-P63VM → Capacity = 63

Model number	Liquid pipe		Gas pipe		
	h	i	j	k	ℓ
200	ø12.7	ø9.52	ø25.4	ø19.05	ø15.88
250	ø12.7	ø9.52	ø28.58	ø19.05	ø15.88

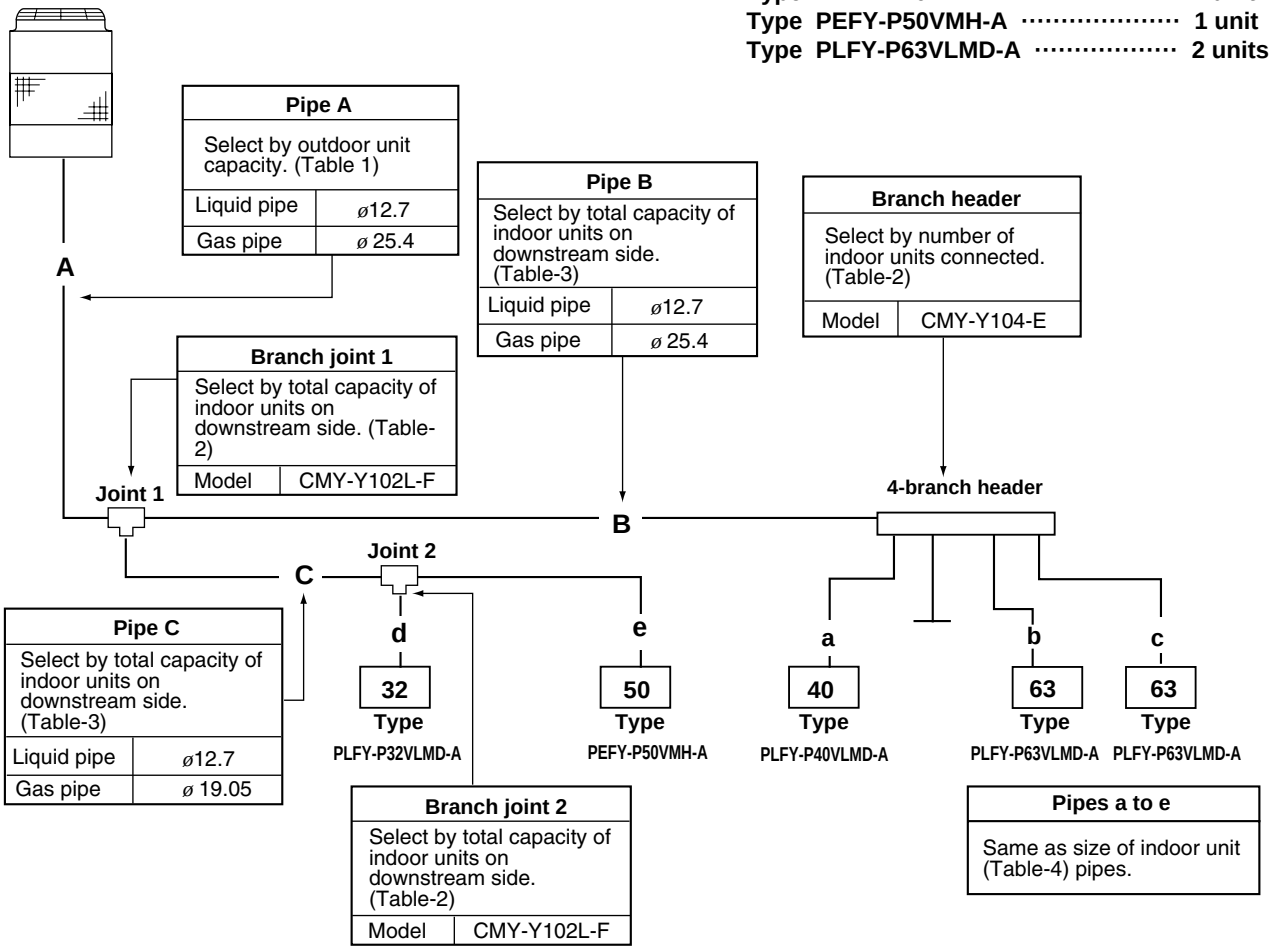
2-4 Example of refrigerant piping selection

① Example 1

System configuration

- **Outdoor unit : Type PUHY-200YMF-C ····· 1 unit**
- **Indoor units : Type PLFY-P32VLMD-A ····· 1 unit**
  Type PLFY-P40VLMD-A ····· 1 unit
  Type PEFY-P50VMH-A ····· 1 unit
  Type PLFY-P63VLMD-A ····· 2 units

Outdoor unit : PUHY-200YMF-C



(1) Selection of branch pipe kit

Branch area	Branch pipe kit selection method	Branch pipe kit model
Joint 1	32 + 40 + 50 + 63 + 63 = 248 (161 or above)	CMY-Y102L-F
Joint 2	32 + 50 = 82 (160 or below)	CMY-Y102S-F
Header	For 4 branches with 8 HP outdoor unit	CMY-Y104-E

(2) Selection of pipe size

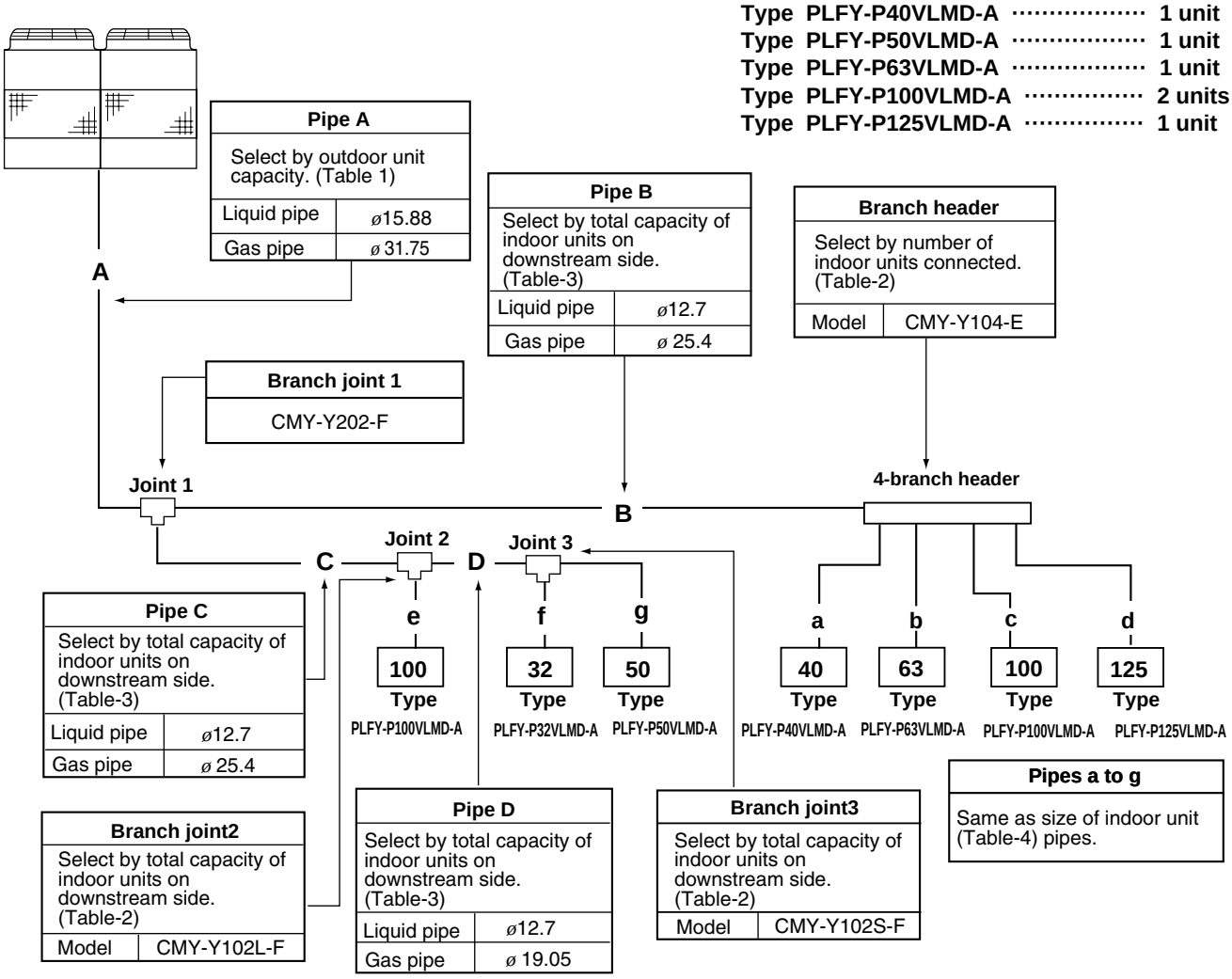
Pipe area	Refregerant pipe selection method		Liquid pipe size	Gas pipe size
A	Same as size of outdoor unit's refrigerant pipe	(PUHY-200YMF-C)	ø12.7	ø25.4
B	40 + 63 + 63 = 166	(160 or above)	ø12.7	〃
C	32 + 50 = 82	(81 ~ 160)	〃	ø19.05
a	Same as size of indoor unit's refrigerant pipe	(PLFY-P40VLMD-A)	ø6.35	ø12.7
b	〃	(PLFY-P63VLMD-A)	ø9.52	ø15.88
c	〃	(PLFY-P63VLMD-A)	〃	〃
d	〃	(PLFY-P32VLMD-A)	ø6.35	ø12.7
e	〃	(PEFY-P50VMH-A)	ø9.52	ø15.88

② Example 2

Outdoor unit : PUHY-400YMC

System configuration

- **Outdoor unit : Type PUHY-400YMC ····· 1 unit**
- **Indoor units : Type PLFY-P32VLMD-A ····· 1 unit**
  Type PLFY-P40VLMD-A ····· 1 unit
  Type PLFY-P50VLMD-A ····· 1 unit
  Type PLFY-P63VLMD-A ····· 1 unit
  Type PLFY-P100VLMD-A ····· 2 units
  Type PLFY-P125VLMD-A ····· 1 unit



(1) Selection of branch pipe kit

Branch area	Branch pipe kit selection method		Branch pipe kit model
Joint 1	–		CMY-Y202-F
Joint 2	32 + 50 + 100 = 182	(160 or above)	CMY-Y102L-F
Joint 3	32 + 50 = 82	(160 or below)	CMY-Y102S-F
Header	For 4 branches with 8 HP outdoor unit		CMY-Y104-E

(2) Selection of pipe size

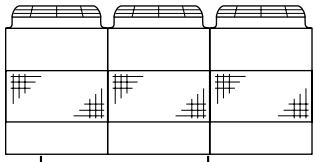
Pipe area	Refregerant pipe selection method		Liquid pipe size	Gas pipe size
A	Same as size of outdoor unit's refrigerant pipe	(PUHY-400YMC)	ø15.88	ø31.75
B	40 + 63 + 100+ 125 = 328	(161 ~ 330)	ø12.7	ø25.4
C	32 + 50 + 100 = 182	(161 ~ 330)	〃	〃
D	32 + 50 + = 82	(81 ~ 160)	〃	ø19.05
a	Same as size of indoor unit's refrigerant pipe	(PLFY-P40VLMD-A)	ø6.35	ø12.7
b	〃	(PLFY-P63VLMD-A)	ø9.52	ø15.88
c	〃	(PLFY-P100VLMD-A)	〃	ø19.05
d	〃	(PLFY-P125VLMD-A)	〃	〃
e	〃	(PLFY-P100VLMD-A)	〃	〃
f	〃	(PLFY-P32VLMD-A)	ø6.35	ø12.7
g	〃	(PLFY-P50VLMD-A)	ø9.52	ø15.88

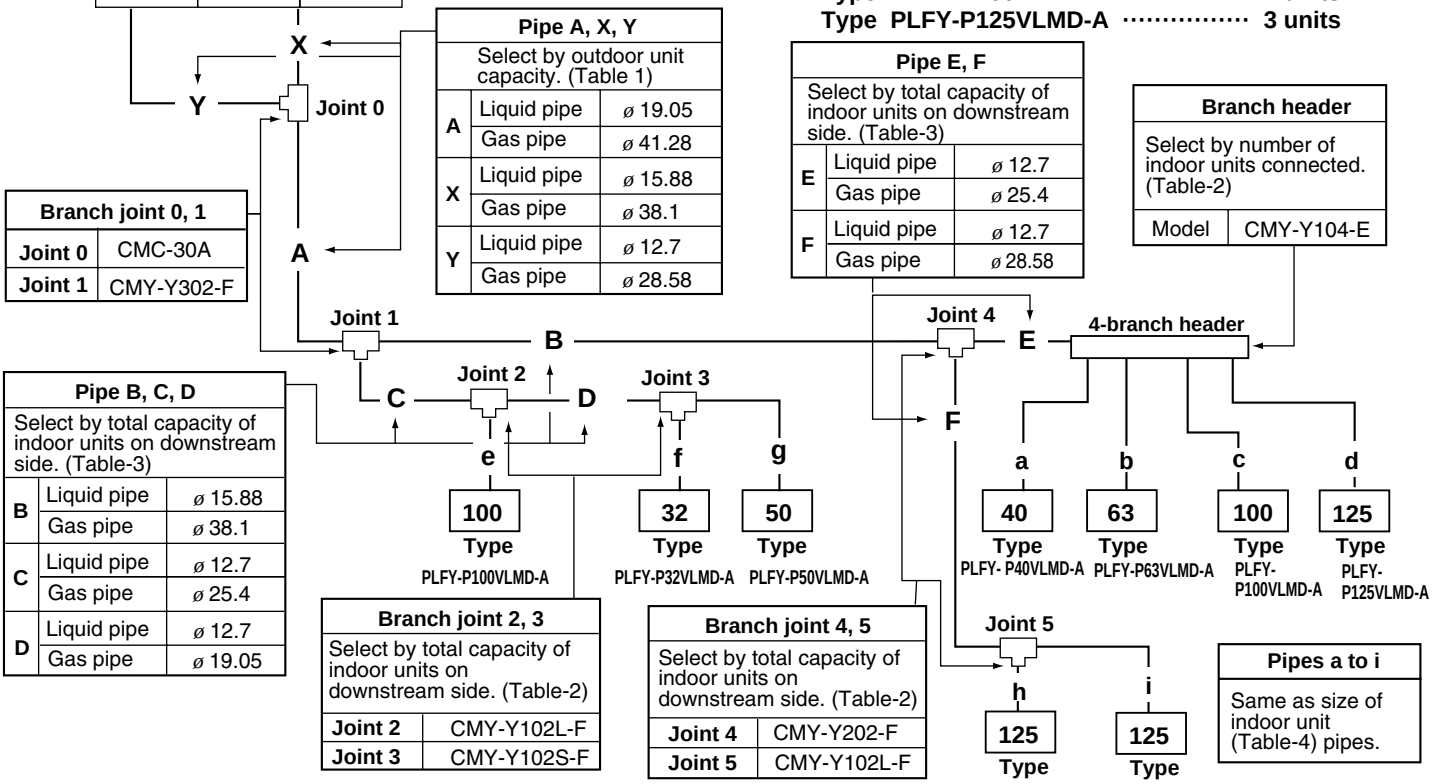
③ Example 3

Outdoor unit : PUHY-750YSMC

System configuration

- **Outdoor unit : Type PUHY-500YMC ····· 1 unit**
  Type PUHN-250YMC ····· 1 unit
- **Indoor units : Type PLFY-P32VLMD-A ····· 1 unit**
  Type PLFY-P40VLMD-A ····· 1 unit
  Type PLFY-P50VLMD-A ····· 1 unit
  Type PLFY-P63VLMD-A ····· 1 unit
  Type PLFY-P100VLMD-A ····· 2 units
  Type PLFY-P125VLMD-A ····· 3 units





Branch joint 0, 1	
Joint 0	CMC-30A
Joint 1	CMY-Y302-F

Pipe A, X, Y		
Select by outdoor unit capacity. (Table 1)		
A	Liquid pipe	ø 19.05
	Gas pipe	ø 41.28
X	Liquid pipe	ø 15.88
	Gas pipe	ø 38.1
Y	Liquid pipe	ø 12.7
	Gas pipe	ø 28.58

Pipe E, F		
Select by total capacity of indoor units on downstream side. (Table-3)		
E	Liquid pipe	ø 12.7
	Gas pipe	ø 25.4
F	Liquid pipe	ø 12.7
	Gas pipe	ø 28.58

Branch header	
Select by number of indoor units connected. (Table-2)	
Model	CMY-Y104-E

Pipe B, C, D		
Select by total capacity of indoor units on downstream side. (Table-3)		
B	Liquid pipe	ø 15.88
	Gas pipe	ø 38.1
C	Liquid pipe	ø 12.7
	Gas pipe	ø 25.4
D	Liquid pipe	ø 12.7
	Gas pipe	ø 19.05

Branch joint 2, 3	
Select by total capacity of indoor units on downstream side. (Table-2)	
Joint 2	CMY-Y102L-F
Joint 3	CMY-Y102S-F

Branch joint 4, 5	
Select by total capacity of indoor units on downstream side. (Table-2)	
Joint 4	CMY-Y202-F
Joint 5	CMY-Y102L-F

Pipes a to i
Same as size of indoor unit (Table-4) pipes.

(1) Selection of branch pipe kit

Branch area	Branch pipe kit selection mothod		Branch pipe kit model
Joint 0	–		CMC-30A
Joint 1	–		CMY-Y302-F
Joint 2	32 + 50 + 100 = 182	(161 ~ 330)	CMY-Y102L-F
Joint 3	32 + 50 = 82	(160 or below)	CMY-Y102S-F
Joint 4	40 + 63 + 100 + 125 × 3 = 578	(331 ~ 630)	CMY-Y202-F
Joint 5	125 × 2 = 250	(161 ~ 330)	CMY-Y102L-F
Header	For 4 branches with 8 HP outdoor unit		CMY-Y104-E

(2) Selection of pipe size

Pipe area	Refrigerant pipe selection method		Liquid pipe size	Gas pipe size
X	Same as size of ooutdoor unit's refrigerant pipe	(PUHY-500YMC)	ø15.88	ø38.1
Y	Same as size of ooutdoor unit's refrigerant pipe	(PUHN-250YMC)	ø12.7	ø28.58
A	Same as size of ooutdoor unit's refrigerant pipe	(PUHY-750YSMC)	ø19.05	ø41.28
B	40 + 63 + 100 + 125 × 3 = 578	(331 ~ 630)	ø15.88	ø38.1
C	32 + 50 + 100 = 182	(161 ~ 330)	ø12.7	ø25.4
D	32 + 50 = 82	(81 ~ 160)	〃	ø19.05
E	40 + 63 + 100 +125 = 328	(161 ~ 330)	〃	ø34.93
F	125 × 2 = 250	(161 ~ 330)	〃	ø28.58
a	Same as size of ooutdoor unit's refrigerant pipe	(PLFY-P40VLMD-A)	ø6.35	ø12.7
b	〃	(PLFY-P63VLMD-A)	ø9.52	ø15.88
c	〃	(PLFY-P100VLMD-A)	〃	ø19.05
d, h ,i	〃	(PLFY-P125VLMD-A)	〃	〃
e	〃	(PLFY-P100VLMD-A)	〃	〃
f	〃	(PLFY-P32VLMD-A)	ø6.35	ø12.7
g	〃	(PLFY-P50VLMD-A)	ø9.52	ø15.88

2-5 Calculation of additional refrigerant charge

① PUMY-125YM(A)

(1) Refrigerant charge

The following amount of refrigerant is being charged into the outdoor unit at factory shipment.
Refrigerant of 3kg equivalent to 50-m total extended piping length is already included when the outdoor unit is shipped. Thus, if the total extended piping length is 50m or less, there is no need to change with additional refrigerant.
If the total extended piping length exceeds 50m, calculate the required additional refrigerant charge using the procedure shown on the below.
If the calculated additional refrigerant charge is a negative amount, do not charge with any refrigerant.

Outdoor unit	PUMY-125YM(A)
Refrigerant charge	8.5kg

(2) Formula to obtain an amount of additional refrigerant charge

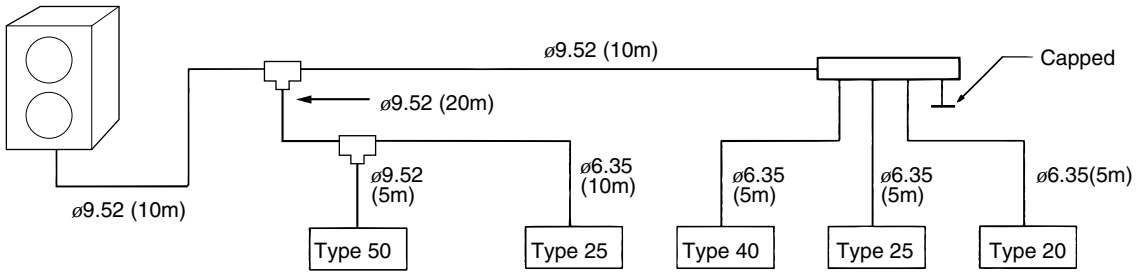
The additional amount of refrigerant to be added is calculated from the size of the extended liquid pipes and their length (in meters).

Additional amount (kg) = (0.06 × L_1) + (0.024 × L_2) - 3kg

Where L_1 : Length of ø9.52 liquid pipe (m)
L_2 : Length of ø6.35 liquid pipe (m)

※1 : Any fractions below 0.01kg in the result of the calculation should be round up. (Examples : 10.52 → 10.6kg)

Example: PUMY-125YM



This calculation concerns only the liquid pipes.

ø9.52 : 10m + 20m + 10m + 5m = 45m
ø6.35 : 10m + 5m + 5m + 5m = 25m

Calculation of additional amount :

Additional amount (kg) = (0.06 × 45) + (0.024 × 25) - 3.0 = 0.3 kg (rounded up)

② PU(H)Y-(P)200,250

(1) Refrigerant charge

The following amount of refrigerant is being charged into the outdoor unit at factory shipment. As the amount does not include that for extended piping, charge it additionally in the filed.

Outdoor unit	PUHY-P200YMF-C PUY-P200YMF-C	PUHY-P250YMF-C PUY-P250YMF-C	PUHY-200YMF-C PUY-200YMF-C	PUHY-250YMF-C PUY-250YMF-C
Refrigerant charge	7.0kg	8.5kg	6.5kg	8.0kg

(2) Formula to obtain an amount of additional refrigerant charge

The additional amount of refrigerant to be added is calculated from the size of the extended liquid pipes and their length (in meters).

Additional amount (kg) = (0.25 × L_1) + (0.12 × L_2) + (0.06 × L_3) + (0.024 × L_4) + A

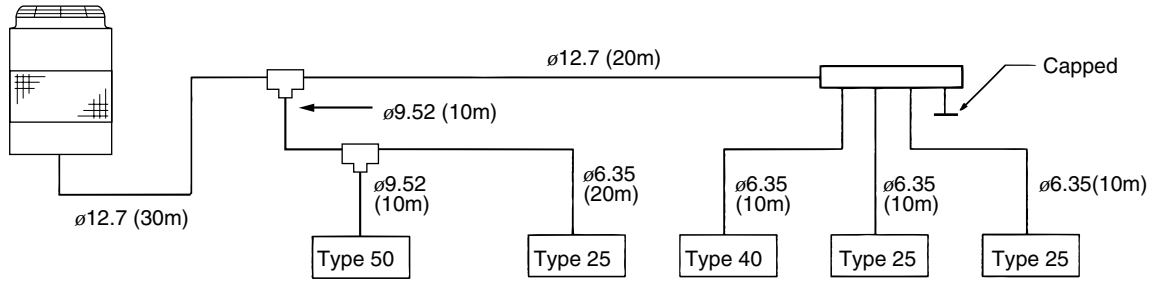
Where L_1 : Length of ø15.88 liquid pipe (m)
L_2 : Length of ø12.7 liquid pipe (m)
L_3 : Length of ø9.52 liquid pipe (m)
L_4 : Length of ø6.35 liquid pipe (m)

A: Additional refrigerant charge by total capacity of indoor units connected.

Total capacity of indoor units connected	Additional refrigerant charge (A)
~ 160	1.5
161 ~ 330	2.0
331 ~ 480	2.5
481 ~ 630	3.0
631 ~	4.0

※1 : Any fractions below 0.01kg in the result of the calculation should be round up. (Examples : 10.52 → 10.6kg)

Example: PUHY-200YMF-C



This calculation concerns only the liquid pipes.

ø12.7 : 30m + 20m = 50m
ø9.52 : 10m + 10m = 20m
ø6.35 : 20m + 10m + 10m + 10m = 50m

Total capacity of indoor units connected:
40 + 25 + 40 + 25 + 25 = 155

Calculation of additional amount :

Additional amount (kg) = (0.12 × 50) + (0.06 × 20) + (0.024 × 50) + 1.5 = 9.90 kg

The result of 9.90 kg is rounded up to one decimal place (0.1kg). Therefore,

Additional amount = 9.9 kg

③ PURY, PQRY

(1) Refrigerant charge

The following amount of refrigerant is being charged into the outdoor unit at factory shipment. As the amount does not include that for extended piping, charge it additionally in the filed.

Outdoor unit	PURY-P200YMF-C	PURY-P250YMF-C	PURY-200YMF-C	PURY-250YMF-C	PQRY-P200YMF-B	PQRY-P250YMF-B
Refrigerant charge	10.5kg	11.5kg	10.0kg	11.0kg	7.5kg	8.5kg

(2) Formula to obtain an amount of additional refrigerant charge

The calculation of additional refrigerant charge is based on the size and length of extended high pressure side piping.

Additional amount (kg) = (0.16 × L_1) + (0.12 × L_2) + (0.06 × L_3) + (0.024 × L_4) + A

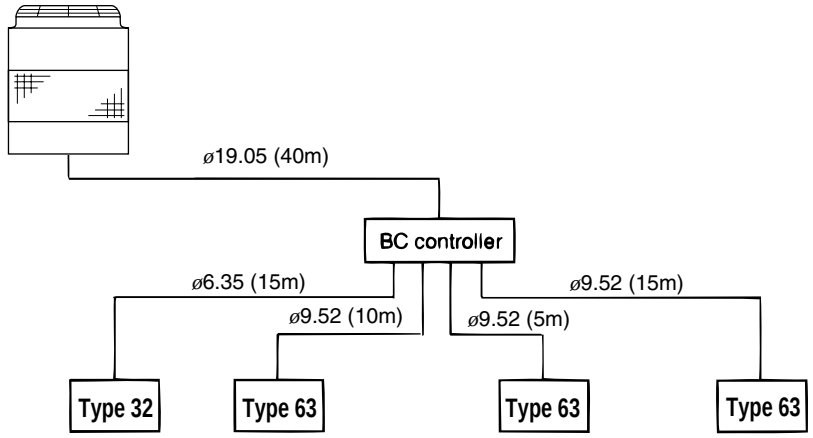
Where L_1 : Length of high pressure pipe ø19.05 (m)
L_2 : Length of high pressure pipe ø12.7 (m)
L_3 : Length of high pressure pipe ø9.52 (m)
L_4 : Length of high pressure pipe ø6.35 (m)

A: Additional refrigerant charge by total capacity of indoor units connected.

Total capacity of indoor units connected		Additional refrigerant charge
PURY-200YMF-C PURY-P200YMF-C PQRY-P200YMF-B	PURY-250YMF-C PURY-P250YMF-C PQRY-P250YMF-B	A
100 ~ 160	125 ~ 160	1.5
161 ~ 300	161 ~ 375	2.0

Note: Raise a fraction of the calculation result less than 0.01kg to a unit. (Examples : 10.52 → 10.6kg)

Example: PURY-200YMF-C



This calculation concems only the liquid (high press) pipes.

ø19.05 : 40m
ø9.52 : 10m + 15m = 25m
ø6.35 : 15m

Total capacity of indoor units connected:
32 + 63 + 63 + 63 = 221

Calculation of additional amount :

Additional amount (kg) = (0.16 × 40) + (0.06 × 30) + (0.024 × 15) + 2 = 10.56 kg

The result of 10.56 kg is rounded up to one decimal place (0.1kg). Therefore,

Additional amount = 10.6 kg

④ PUHY-(P)400·500

The amounts of refrigerant given in the table below are added in the outdoor units at the factory prior to shipment. However, they do not cover the requirements for piping extensions, and additional refrigerant must be added at the installation site.

Outdoor unit model	PUHY-(P)400	PUHY-(P)500
Amount of refrigerant being added at the factory prior to shipment	16kg	22kg

(1) Formula for calculation

The additional amount of refrigerant to be added is calculated from the size of the extended liquid pipes and their length (in meters).

Additional amount (kg) = (0.29 × L_1) + (0.25 × L_2) + (0.12 × L_3) + (0.06 × L_4) + (0.024 × L_5) + A

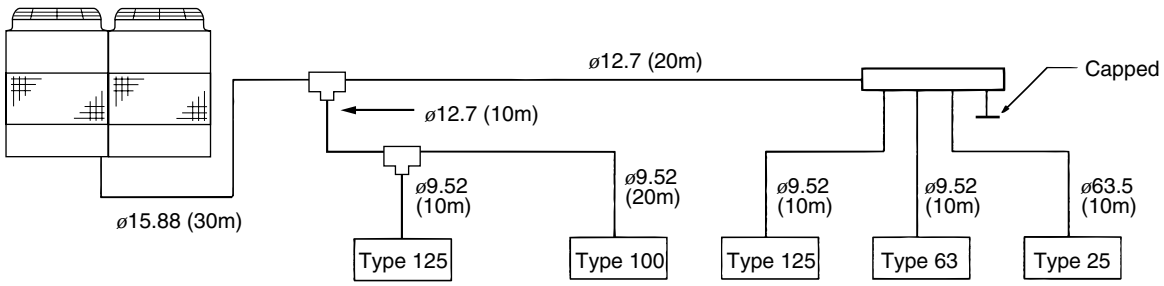
Where L_1 **: Length of ø19.05 liquid pipe (m)**
L_2 **: Length of ø15.88 liquid pipe (m)**
L_3 **: Length of ø12.7 liquid pipe (m)**
L_4 **: Length of ø9.52 liquid pipe (m)**
L_5 **: Length of ø6.35 liquid pipe (m)**

A: Additional refrigerant charge by total capacity of indoor units connected.

Total capacity of indoor units connected	Additional refrigerant charge (A)
~ 160	1.5
161 ~ 330	2.0
331 ~ 480	2.5
481 ~ 630	3.0
631 ~	4.0

※1 : Any fractions below 0.01kg in the result of the calculation should be round up. (Examples : 10.52 → 10.6kg)

(2) Example: PUHY-P500YMF-B



This calculation concems only the liquid pipes.

ø15.88 : 30m
ø12.7 : 10m + 20m = 30m
ø9.52 : 10m + 20m + 10m + 10m = 50m
ø6.35 : 10m

Total capacity of indoor units connected:
125 + 100 + 125 + 63 + 25 = 438

Using the above formula:

Additional amount (kg) = (0.25 × 30) + (0.12 × 30) + (0.06 × 50) + (0.024 × 10) + 2.5 = 16.84 kg

The result of 9.90 kg is rounded up to one decimal place (0.1kg). Therefore,

Additional amount = 1.69 kg

⑤ PUHY-(P)600·650·700·750

The amounts of refrigerant given in the table below are added in the outdoor units at the factory prior to shipment. However, they do not cover the requirements for piping extensions, and additional refrigerant must be added at the installation site.

Outdoor unit model	PUHN-(P)200	PUHN-(P)250	PUHY-(P)400	PUHY-(P)500
Amount of refrigerant being added at the factry prior to shipment	6.5kg	8.5kg	16kg	22kg

(1) Formula for calculation

The additional amount of refrigerant to be added is calculated from the size of the extended liquid pipes and their length (in meters).

Additional amount (kg) = (0.29 × L_1) + (0.25 × L_2) + (0.12 × L_3) + (0.06 × L_4) + (0.024 × L_5) + A

Where **L_1 : Length of ø19.05 liquid pipe (m)**
L_2 : Length of ø15.88 liquid pipe (m)
L_3 : Length of ø12.7 liquid pipe (m)
L_4 : Length of ø9.52 liquid pipe (m)
L_5 : Length of ø6.35 liquid pipe (m)

A: Additional refrigerant charge by total capacity of indoor units connected.

Total capacity of indoor units connected	Additional refrigerant charge (A)
~ 160	1.5
161 ~ 330	2.0
331 ~ 480	2.5
481 ~ 630	3.0
631 ~	4.0

※1 : Any fractions below 0.01kg in the result of the calculation should be round up. (Examples : 10.52 → 10.6kg)

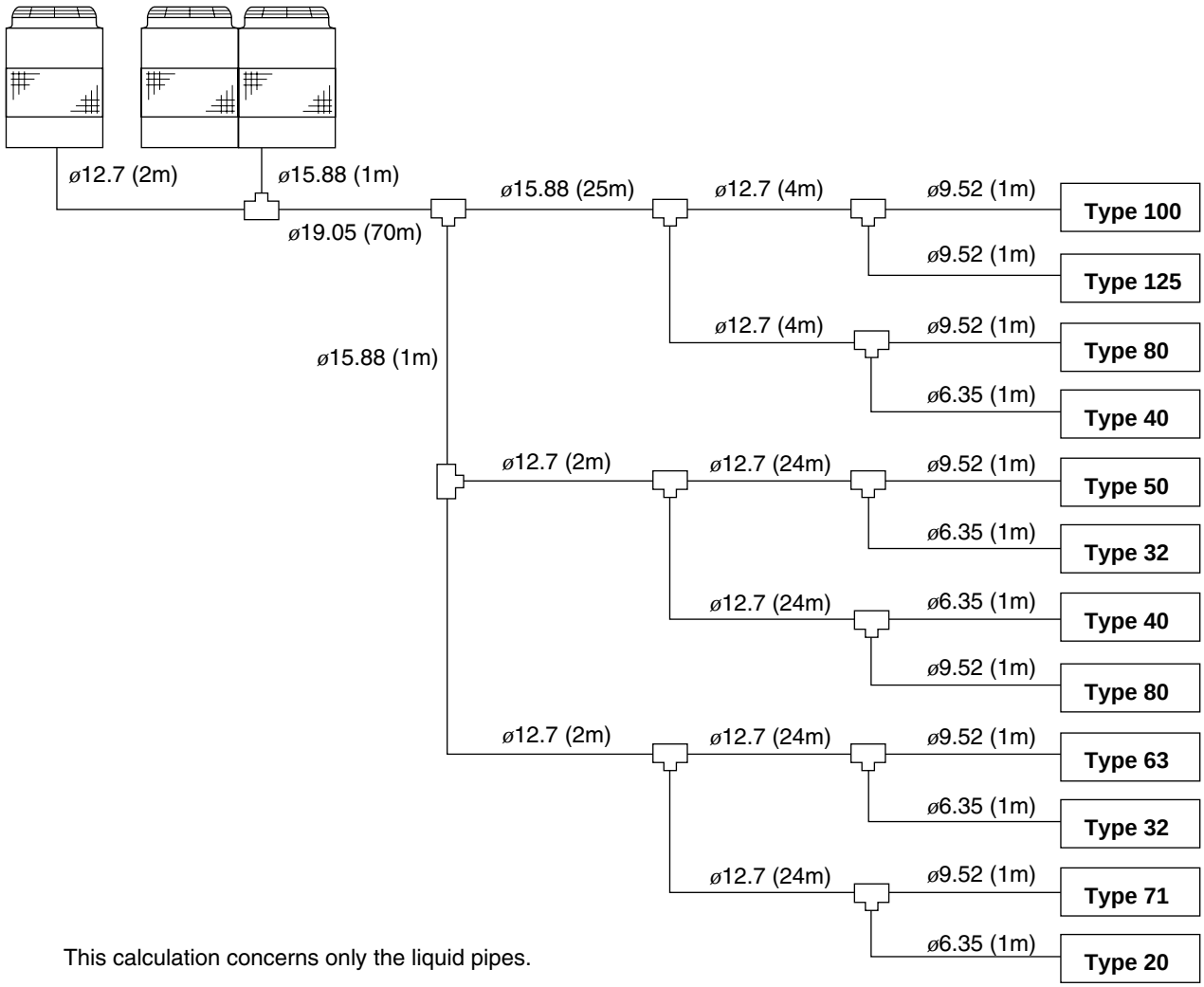
※2 : PUHY-(P)600/650/700/750

Additional amount (kg) ≦ 73kg - (Amount of refrigerant being added at the factry prior to shipment)

ex. PUHY-750YSMC

Additional amount (kg) ≦ 73kg - (22 + 8.5)
≦ 42.5kg

(2) Example: PUHY-750YSMC



This calculation concerns only the liquid pipes.

ø19.05 : 70 + 1 = 71m
ø15.88 : 1 + 25 = 26m
ø12.7 : 2 + 4 + 4 + 2 + 24 + 24 + 2 + 24 + 24 = 110m
ø9.52 : 1 + 1 + 1 + 1 + 1 + 1 + 1 = 7m
ø6.35 : 1 + 1 + 1 + 1 + 1 = 5m

Total capacity of indoor units connected:

125 + 100 + 80 × 2 + 71 + 63 + 50 + 40 × 2 + 32 × 2 +20 = 733

Using the above formula:

Additional amount (kg) = (0.29 × 71) + (0.25 × 26) + (0.12 × 110) + (0.06 × 7) + (0.024 × 5) + 4 = 44.83kg

Additional amount ≦ 73kg - (Amount of refrigerant to be added). Therefore,

Additional amount (kg) = 73kg - (22 + 8.5) = 42.5kg

2-6 Electric characteristics

(1) Indoor unit

Symbols: MCA : Max. Circuit Amps (=1.25×FLA) FLA : Full Load Amps
IFM : Indoor Fan Motor Output : Fan motor rated output

Model		Units		Power supply	IFM		
		Volts / Hz	Voltage range	MCA(A)	Output(kW)	FLA(A)	
PMFY-P-VBM-A	20	220-240V / 50Hz 220V / 60Hz	Max.: 264V Min.: 198V	0.25	0.028	0.20	
	25·32			0.26	0.028	0.21	
	40			0.33	0.028	0.26	
PLFY-P-VKM-A	32·40			0.75	0.030	0.60	
	50			0.80	0.030	0.64	
	63			0.85	0.030	0.68	
PLFY-P-VAM-A	80			1.08	0.070	0.86	
	100			1.79	0.120	1.43	
	125			2.05	0.120	1.64	
PLFY-P-VLMD-A	20·25	220-240V / 50Hz		0.54	0.033	0.43	
	32			0.60	0.033	0.48	
	40			0.96	0.075	0.77	
	50			0.96	0.075	0.77	
	63			1.31	0.078	1.05	
	80			1.38	0.078	1.10	
	100			1.50	0.078x2	1.20	
	125			1.69	0.078x2	1.35	
PEFY-P-VML-A	20·25	220-240V / 50Hz 220-240V / 60Hz		0.30/0.35	0.023	0.24/0.28	
	32			0.40/0.53	0.032	0.32/0.42	
PEFY-P-VMH-A	40·50			1.21/1.61	0.08	0.97/1.29	
	63			1.49/1.95	0.12	1.19/1.56	
	71			1.58/2.18	0.14	1.26/1.74	
	80			1.85/2.40	0.18	1.48/1.92	
	100·125			3.03/3.93	0.26	2.42/3.14	
	140			3.10/3.98	0.26	2.48/3.18	
	200	380-415V / 50Hz 380-415V / 60Hz	Max.: 456V Min.: 342V	2.03/2.33	0.54	1.62/1.86	
	250			2.50/2.88	0.87	2.00/2.30	
PEFY-P-VMM-A	20·25	220-240V / 50Hz 220V / 60Hz	Max.: 264V Min.: 198V	0.91	0.15	0.73	
	32			1.01	0.17	0.81	
	40			1.15	0.19	0.92	
	50			1.23	0.20	0.98	
	63			1.34	0.22	1.07	
	71·80			1.44	0.25	1.15	
	100			1.68	0.29	1.34	
	125			2.38	0.40	1.90	
	140			2.44	0.42	1.95	
PDFY-P-VM-A	20·25·32			0.66/0.73	0.075	0.53/0.58	
	40·50			0.75/0.89	0.075	0.60/0.71	
	63			0.85/1.03	0.078	0.68/0.82	
	71			0.90/1.10	0.078	0.72/0.88	
	80			1.03/1.26	0.078	0.82/1.01	
	100			1.60-1.68/1.70	0.140	1.28-1.34/1.36	
	125			1.94-2.04/2.30	0.190	1.55-1.63/1.84	(50/60Hz)
PKFY-P-VAM-A	20·25			0.25	0.017	0.20	
PKFY-P-VGM-A	32·40·50			0.40	0.030	0.32	
PCFY-P-VGM-A	40			0.58	0.054	0.46	
	63			0.75	0.070	0.60	
	100			0.91	0.090	0.73	
	125			1.38	0.150	1.10	

Model		Units		Power supply	IFM	
		Volts / Hz	Voltage range	MCA(A)	Output(kW)	FLA(A)
PFFY-P-VLEM-A	20-25	220-240V / 50Hz	Max.: 264V Min.: 198V	0.24 / 0.31	0.020	0.19 / 0.25
	32			0.36 / 0.38	0.030	0.29 / 0.30
	40			0.40 / 0.41	0.035	0.32 / 0.33
	50			0.50 / 0.51	0.035	0.40 / 0.41
	63			0.58 / 0.59	0.045	0.46 / 0.47
PFFY-P-VLRM-A	20-25			0.24 / 0.31	0.020	0.19 / 0.25
	32			0.36 / 0.38	0.030	0.29 / 0.30
	40			0.40 / 0.41	0.135	0.32 / 0.33
	50			0.50 / 0.51	0.135	0.40 / 0.41
	63			0.58 / 0.59	0.045	0.46 / 0.47

(2) Outdoor unit (Cooling)

Refrigerant type : R22

Symbols: MCA : Max.Circuit Amps (=1.25 × max. RLA)
SC : Starting Current RLA : Rated Load Amps

Model	Units			Power supply	Compressor		Fan	RLA(A)
	Hz	Volts	Voltage range	MCA(A)	Output(kW)	SC(A)	Output(kW)	
PUMY-125YM	50 60	380	Max.: 456V Min.: 342V	12.00	3.5	8	0.06×2	9.6
		400						9.1
		415						8.8
PUHY-200YMF-C PUY-200YMF-C		380		18.13	5.5	12	0.38	14.5
		400						13.8
		415						13.3
PUHY-250YMF-C PUY-250YMF-C		380		22.88	7.5	12	0.38	18.3
		400						17.4
		415						16.8
PUHY-315YMC		380		29.00	9.25	12	0.35	23.2
		400						22.1
		415						21.3
PUHY-400YMC		380		36.13	7.5+4.5	103(50Hz) 96(60Hz)	0.35×2	28.9
		400						27.5
		415						26.5
PUHY-500YMC		380		42.75	7.5+7.5	138(50Hz) 125(60Hz)	0.35×2	34.2
		400						32.5
		415						31.3
PUHY-600YSMC		380		52.38	7.5+4.5+5.5	145(50Hz) 132(60Hz)	0.35×3	41.1
		400						39.4
		415						37.9
PUHY-650YSMC		380		55.75	7.5+4.5+7.5	150(50Hz) 137(60Hz)	0.35×3	44.6
		400						42.4
		415						40.8
PUHY-700YSMC		380		60.38	7.5+7.5+5.5	145(50Hz) 132(60Hz)	0.35×3	48.3
		400						45.8
		415						44.2
PUHY-750YSMC		380		64.25	7.5+7.5+7.5	150(50Hz) 137(60Hz)	0.35×3	51.4
		400						48.8
		415						47.1
PURY-200YMF-C	50	380		18.13	5.5	12	0.38	14.5
		400						13.8
		415						13.3
PURY-250YMF-C		380		22.88	7.5	12	0.38	18.3
		400						17.4
		415						16.8

Symbols: MCA : Max.Circuit Amps (=1.25 × max. RLA)
SC : Starting Current RLA : Rated Load Amps

Refrigerant type : R407C

Model	Units			Power supply	Compressor		Fan	RLA(A)
	Hz	Volts	Voltage range	MCA(A)	Output(kW)	SC(A)	Output(kW)	
PUHY-P200YMF-C PUY-P200YMF-C	50 60	380	Max.: 456V Min.: 342V	18.13	5.5	12	0.38	14.5
		400						13.8
		415						13.3
PUHY-P250YMF-C PUY-P250YMF-C		380		22.88	7.5	12	0.38	18.3
		400						17.4
		415						16.8
PUHY-P400YMF-B		380		35.25	4.5+7.5	103(50Hz) 96(60Hz)	0.35×2	28.2
		400						26.8
		415						25.8
PUHY-P500YMF-B		380		43.88	7.5+7.5	138(50Hz) 125(60Hz)	0.35×2	35.1
		400						33.4
		415						32.2
PUHY-P600YSMF-B		380		53.13	4.5+7.5+5.5	145(50Hz) 132(60Hz)	0.35×3	42.5
		400						40.4
		415						38.9
PUHY-P650YMSF-B		380		57.25	4.5+7.5+7.5	150(50Hz) 137(60Hz)	0.35×3	45.8
		400						43.5
		415						41.9
PUHY-P700YSMF-B		380		62.88	7.5+7.5+5.5	145(50Hz) 132(60Hz)	0.35×3	50.3
		400						47.8
		415						46.1
PUHY-P750YMSF-B		380		66.88	7.5+7.5+7.5	150(50Hz) 137(60Hz)	0.35×3	53.5
		400						50.8
		415						48.9
PURY-P200YMF-C	50	380		18.13	5.5	12	0.38	14.5
		400						13.8
		415						13.3
PURY-P250YMF-C		380		22.88	7.5	12	0.38	18.3
		400						17.4
		415						16.8
PQRY-P200YMF-B		380		17.5	5.5	12	–	14.0
		400						13.3
		415						12.8
PQRY-P250YMF-B		380		23.5	7.5	12	–	18.8
		400						17.9
		415						17.2

(3) BC controller

Model	Units			Power supply		RLA(A)
	Hz	Volts	Voltage range	MCA(A)	MFA(A)	
CMB-P104V-E	50	220	Max.: 264V Min.: 198V	0.39	15	0.31
		230				0.30
		240				0.29
CMB-P105V-E		220		0.48	15	0.38
		230				0.36
		240				0.35
CMB-P106V-E		220		0.57	15	0.45
		230				0.43
		240				0.41
CMB-P108V-E		220		0.87	15	0.58
		230				0.56
		240				0.54
CMB-P1010V-E		220		0.90	15	0.72
		230				0.69
		240				0.66
CMB-P1013V-E		220		1.17	15	0.93
		230				0.89
		240				0.85
CMB-P1016V-E		220		1.42	15	1.13
		230				1.08
		240				1.04

Symbols
MCA : Max.Circuit Amps (=1.25 × max. RLA)
MFA : Max. Fuse Amps
RLA : Rated Load Amps

2-7 Installation

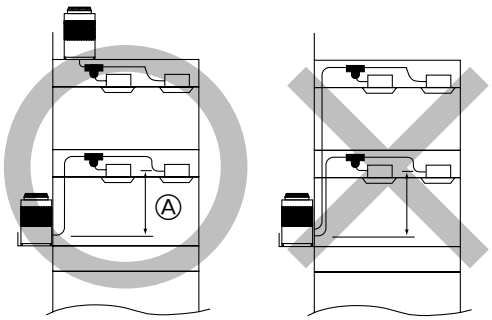
2-7-1 Selection of installation site

① PUMY, PUHY, PUY

Select space for installing outdoor unit, which will meet the following conditions:

- no direct thermal radiation from other heat sources
- no possibility of annoying neighbors by noise from unit
- no exposition to strong wind
- with strength which bears weight of unit
- note that drain flows out of unit when heating
- with space for air passage and service work shown 2-7-2 Space required around unit
  Because of the possibility of fire, do not install unit to the space where generation, inflow, stagnation, and leak of combustible gas is expected.
- Avoid unit installation in a place where acidic solution and spray (sulfur) are often used.
- When having cooling operation at an outside air temperature of below 10°C, in order to obtain steady operation of unit, select an installation site not exposed directly to rain and snow, or install air outlet and inlet ducts. Install the outdoor unit at the same position on the same floor, or above, the indoor unit.
- Do not use unit in any special environment where oil, steam and sulfuric gas exist.

Installation restriction on outdoor unit when cooling operation is performed when the outdoor air temperature is 10°C or lower.



Ⓐ 4 m or less

(Same floor as indoor unit, or floor above)

② PURY

Select space for installing heat source unit, which will meet the following conditions:

- no direct thermal radiation from other heat sources
- no possibility of annoying neighbors by noise from unit
- with strength which bears weight of unit
- note that drain flows out of unit when heating
- with space and service work shown 2-7-2 Space required around unit
  Because of the possibility of fire, do not install unit to the space where generation, inflow, stagnation, and leak of combustible gas is expected.
- Avoid unit installation in a place where acidic solution and spray (sulfur) are often used.
- Do not use unit in any special environment where oil, steam and sulfuric gas exist.

③ PQRY

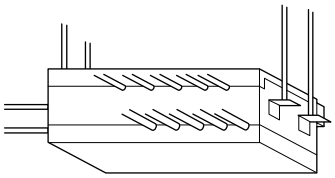
Select space for installing heat source unit, which will meet the following conditions:

- no direct thermal radiation from other heat sources
- no possibility of annoying neighbors by noise from unit
- with strength which bears weight of unit
- note that drain flows out of unit when heating
- with space and service work shown 2-7-2 Space required around unit
  Because of the possibility of fire, do not install unit to the space where generation, inflow, stagnation, and leak of combustible gas is expected.
- Avoid unit installation in a place where acidic solution and spray (sulfur) are often used.
- Do not use unit in any special environment where oil, steam and sulfuric gas exist.
- No exposure to rain or other moisture. (the heat source unit should only be used indoors)
- The declining gradient of the exhaust pipe should be higher than 1/100.

④ BC controller

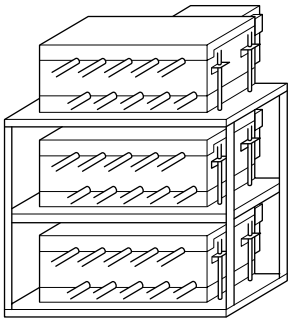
- Place not exposed to rain. (BC controller is a special machine for indoor use.)
- Place with large enough service space.
- Place in which refrigerant pipes can be provided within the limitations.
- Place not exposed to direct radiant heat from other heat sources.
- Do not install the unit in any oily steamy place or near any machine that generates high frequencies. Doing so may cause a risk of fire, erroneous operation or dew drop.
- Place with less noise effect generated from other units.
- Place in which water piping, refrigerant piping and electrical wiring can be done easily.
- Avoid places exposed to the generation, inflow, accumulation or leakage of flammable and sulfuric gases.
- Place in which a downward pitch of more than 1/100 can be taken for drain piping.

1. For hanging from the ceiling



- Provide a inspection hole 450 mm square to the ceiling surface as shown in 2-7-2 Space required around unit.
- Above the ceiling of corridor, bath room, etc., where persons are not regularly there
  (Avoid installing at around center of the room.)
- Place with strength to the degree that hanging bolts can be mounted (that sustains a pull-out load of 60kg per bolt)
- Be sure to install BC controllers at level.

2. For stacking on a rack



- Place in which sufficient space can be obtained around a rack
- Place with floor strength that sustains the entire weight

⚠ Warning:
Be sure to install the unit in a place that well sustains the entire weight.
If there is a lack of strength, it may cause the unit to fall down, resulting in an injury.

⚠ Caution:
Be sure to install the unit at level.

2-7-2 Space required around unit

① PUMY

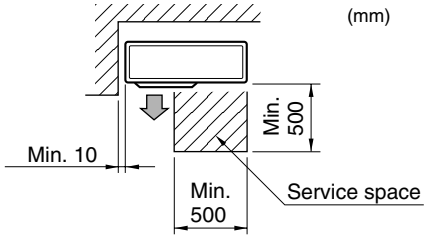
Service space around the outdoor unit

- If an optional air guide is needed, install it according to the manual or technical documents supplied with the air guide.
- In the case of an optional branch pipe kit, the service space specified in the manual supplied with the kit is required around the outdoor unit, so refer to the manual when installing it.

(1) When installing a single outdoor unit

① Service space

Maintain an easily accessible service space in front of the unit as shown in the diagram.



② Top obstacles

If there are no obstacles in front or at the left or right of the unit, obstacles above the unit are permitted as shown in the diagram.

- The front, right and left sides must be free of obstacles.

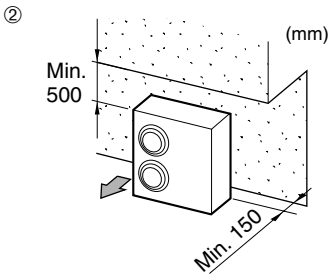
③ Unobstructed front (blowing side)

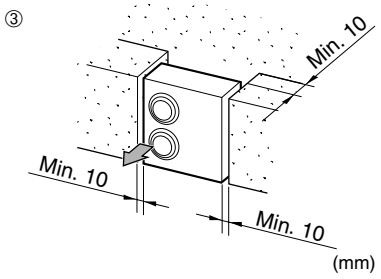
If the size of the space reserved for the unit is as shown in the diagram, the unit can be installed so that obstacles are at the right, left and rear.

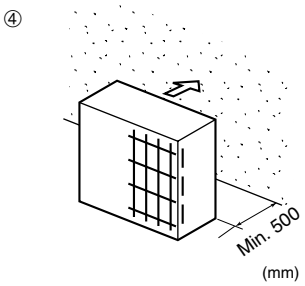
- The front and top must be unobstructed.
- The height of obstacles on either side must be the same or lower than that of the outdoor unit.

④ Obstacles in the front (blowing side) only

If there are obstacles in front of the unit, keep the back, left/right, & top unobstructed.

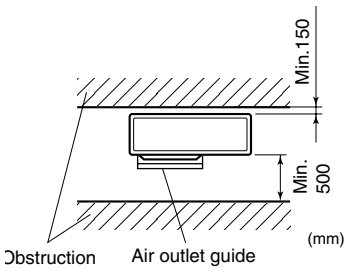






⑤ Obstacles at the front & rear only

The outdoor unit cannot be used except if the following conditions are met:
An optional outdoor air outlet guide (left/right & top unobstructed) must be fitted.
Moreover, if there is no natural wind flowing between the obstacles, keep the height or width of the obstacles within the following range to prevent the risk of short cycling. (If either the front or rear satisfies the requirements, there is no special restriction on the remaining side).
Obstruction width: 1.5 times the width of outdoor unit or smaller
Obstruction height: Unit height or lower

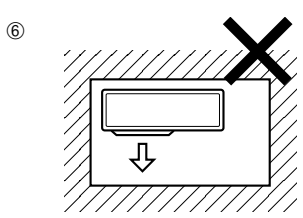


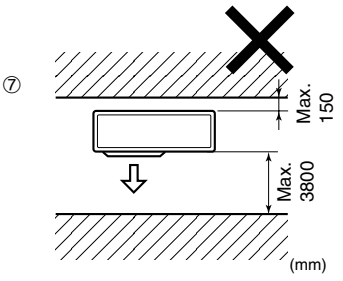
⑥ Obstacles on 4 surrounding sides

The unit cannot be used if there are obstacles on all 4 surrounding sides, even if there is more than the prescribed amount of space around the outdoor unit and if the top is unobstructed.

⑦ Obstacles at the front & rear

This unit cannot be used if the following conditions are met:



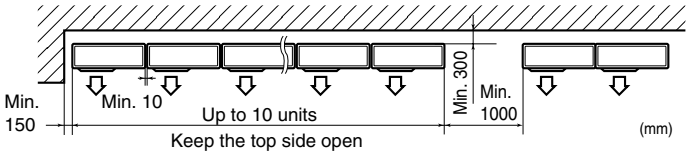


(2) When installing many outdoor units

① Side-by-side arrangement

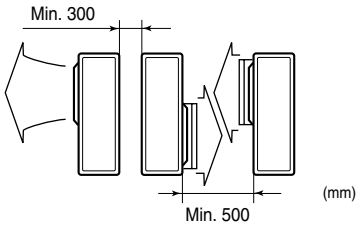
Remove the side screw on the pipe cover.
Keep the top unobstructed.

• Refrigerant piping and electric wiring cannot be attached on the right side.

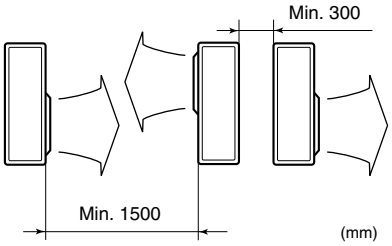


② Face-to-face arrangement (with air outlet guide)

Fit an optional outdoor air outlet guide on each unit and set them to “upward blow”.

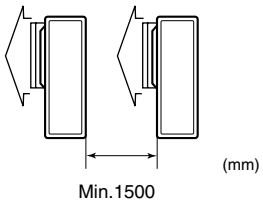


③ Face-to-face arrangement (without air outlet guides)

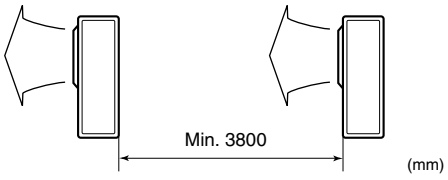


④ Parallel arrangement (with air outlet guides)

Fit an optional outdoor air outlet guide on each unit.



⑤ Parallel arrangement (without air outlet guides)



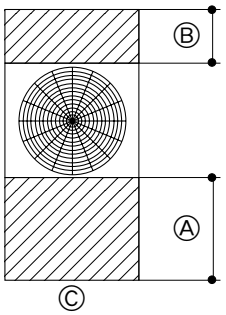
② PUHY, PUY

(1) Individual installation

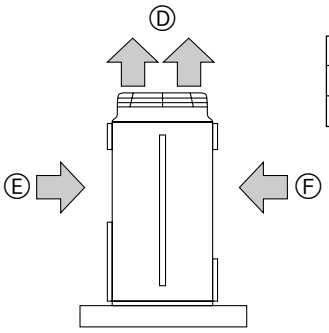
Basic space required

A space of at least 250(450) mm is necessary at the back for inlet air. Taking servicing, etc. from the rear into account, a space of about 450 mm should be provided, the same as at the front.

< Model : 200·250·315>



<Top view>

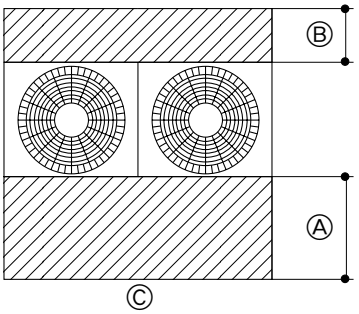


<Side view>

	L1	L2
PU(H)Y-P200·250	450mm	450mm
others	450mm	250mm

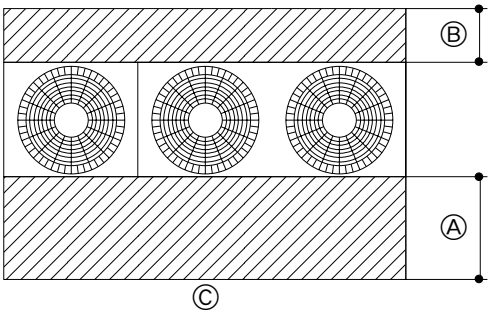
Ⓐ L1 mm or more
Ⓑ L2 mm or more
Ⓒ Front (outside of machine room)
Ⓓ Top discharge (open in principle)
Ⓔ Front inlet (open in principle)
Ⓕ Rear inlet (open in principle)

< Model : 400·500>



<Top view>

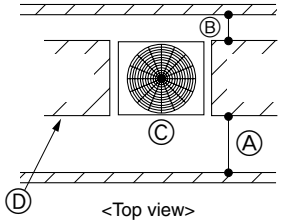
< Model : 600·650·700·750>



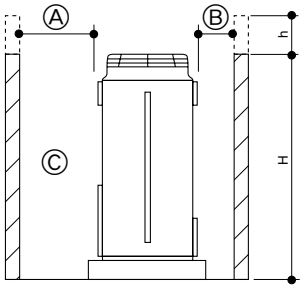
<Top view>

When inlet air enters from right and left sides of unit

< Model : 200·250·315>



<Top view>

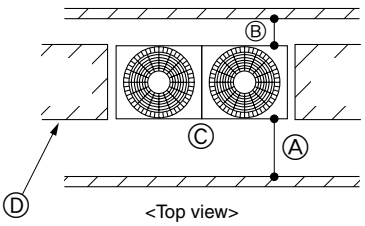


<Side view>

Ⓐ L1 or more
Ⓑ L2 or more
Ⓒ Front
Ⓓ No restrictions on wall height (left and right)

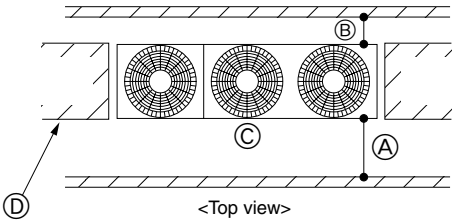
	L1	L2
PU(H)Y-P200·250	450mm	450mm
others	450mm	250mm

< Model : 400·500>



<Top view>

< Model : 600·650·700·750>



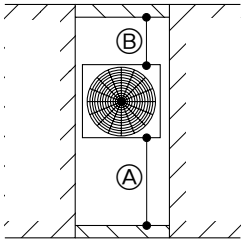
<Top view>

Note:

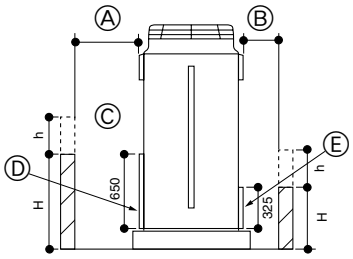
- **Wall heights (H) of the front and the back sides shall be within overall height of unit.**
- **When the total height is exceeded, add the "h" dimension of the figure above to L1 and L2 in the table above.**

When unit is surrounded by walls

< Model : 200·250·315>



<Top view>

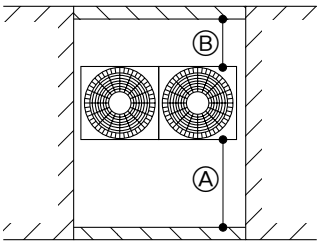


<Side view>

Ⓐ L_1 or more
Ⓑ L_2 or more
Ⓒ Front
Ⓓ Front panel
Ⓔ Rear panel

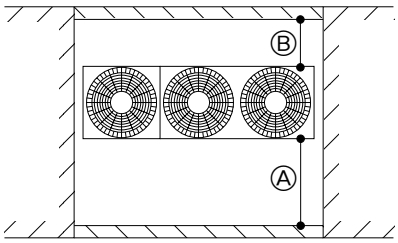
	L_1	L_2
PU(H)Y-P200·250	450mm	450mm
others	450mm	250mm

< Model : 400·500>



<Top view>

< Model : 600·650·700·750>



<Top view>

Note:

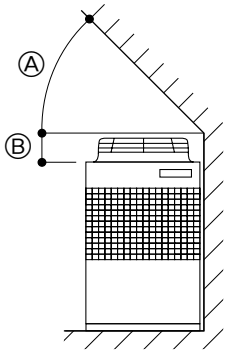
- **Wall heights (H) of the front and the back sides shall be within height of front panel and rear panel.**
- **If the panel height is exceeded, add the "h" dimension of the figure above to L_1 and L_2 in the table above.**

Example: When h is 100

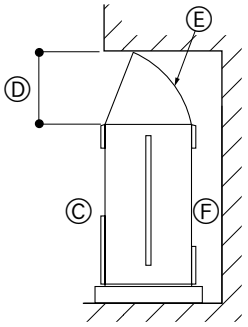
The L_1 dimension becomes 450+100 = 550 mm.

When there is an obstruction above the unit

< Model : 200·250·315>



<Front view>

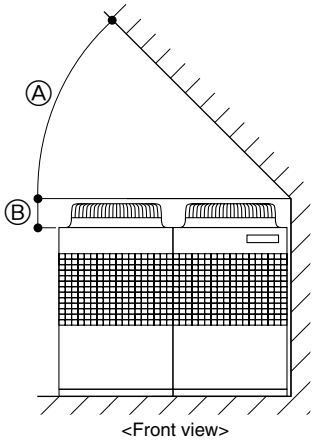


<Side view>

When there is little space up to an obstruction

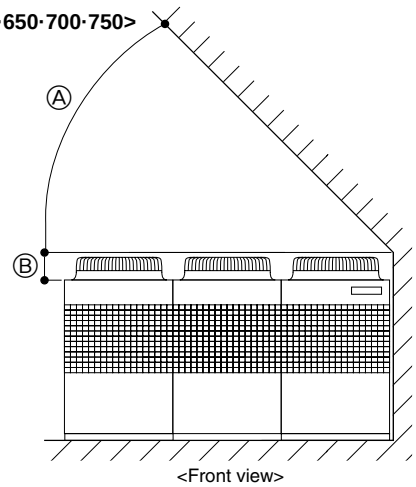
Ⓐ 45° or more
Ⓑ 300 mm or more
Ⓒ Front
Ⓓ 1000 mm or more
Ⓔ Air outlet guide (procured at the site)
Ⓕ Rear

< Model : 400·500>



<Front view>

< Model : 600·650·700·750>

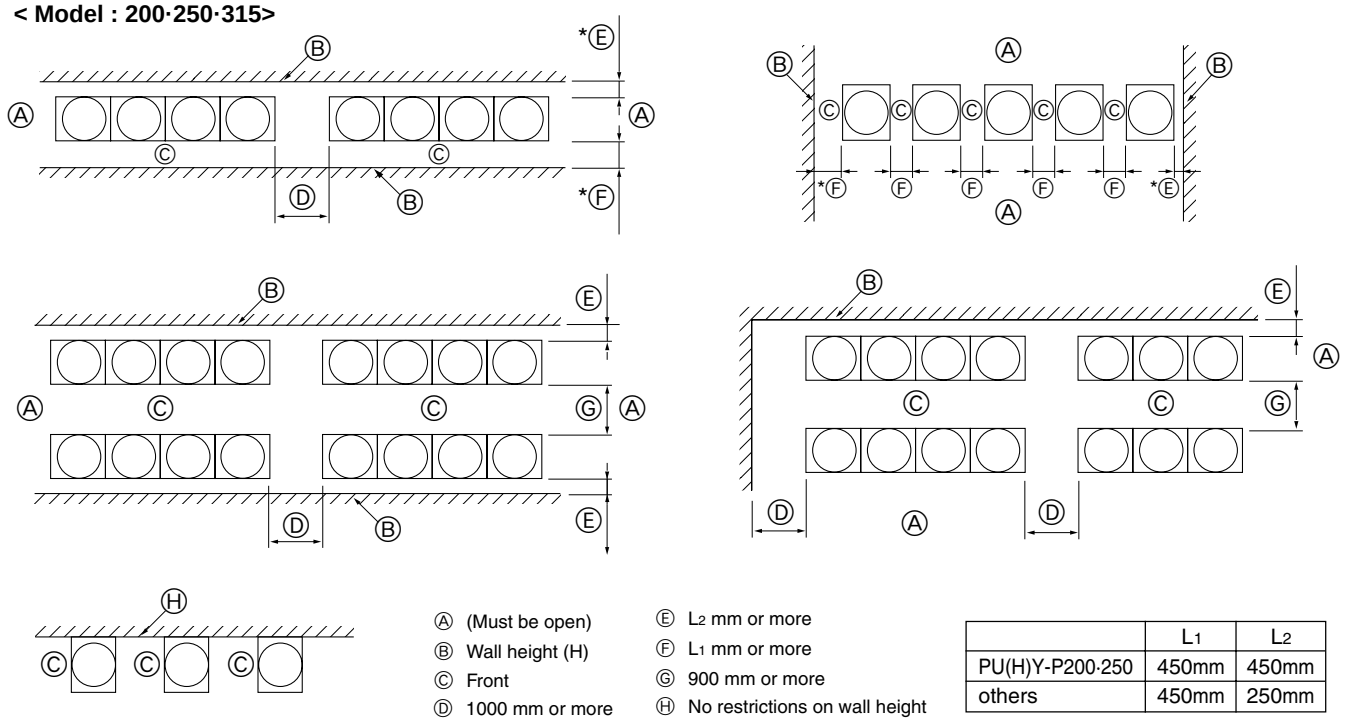


<Front view>

(2) Collective installation and continuous installation

Space required for collective installation and continuous installation:When installing several units, leave the space between each block as shown below considering passage for air and people.

< Model : 200·250·315>



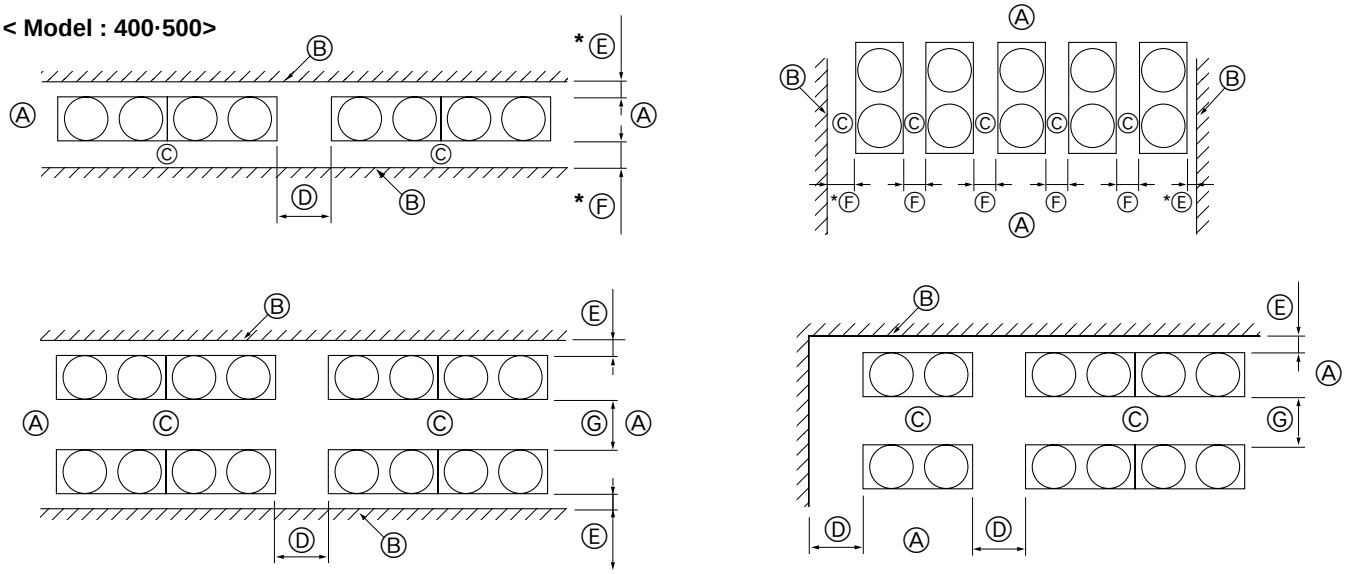
Ⓐ (Must be open)
Ⓑ Wall height (H)
Ⓒ Front
Ⓓ 1000 mm or more
Ⓔ L_2 mm or more
Ⓕ L_1 mm or more
Ⓖ 900 mm or more
Ⓗ No restrictions on wall height

	L_1	L_2
PU(H)Y-P200·250	450mm	450mm
others	450mm	250mm

Note:

- **Open in the two directions**
- **In case wall height (H) exceeds overall height of unit, add "h" dimension (h=wall height <H> – overall height of unit) to * marked dimension.**
- **If there is a wall at both the front and the rear of the unit, install up to three units consecutively in the side direction and provide a space of 1000 mm or more as inlet space/passage space for each three units.**

< Model : 400·500>



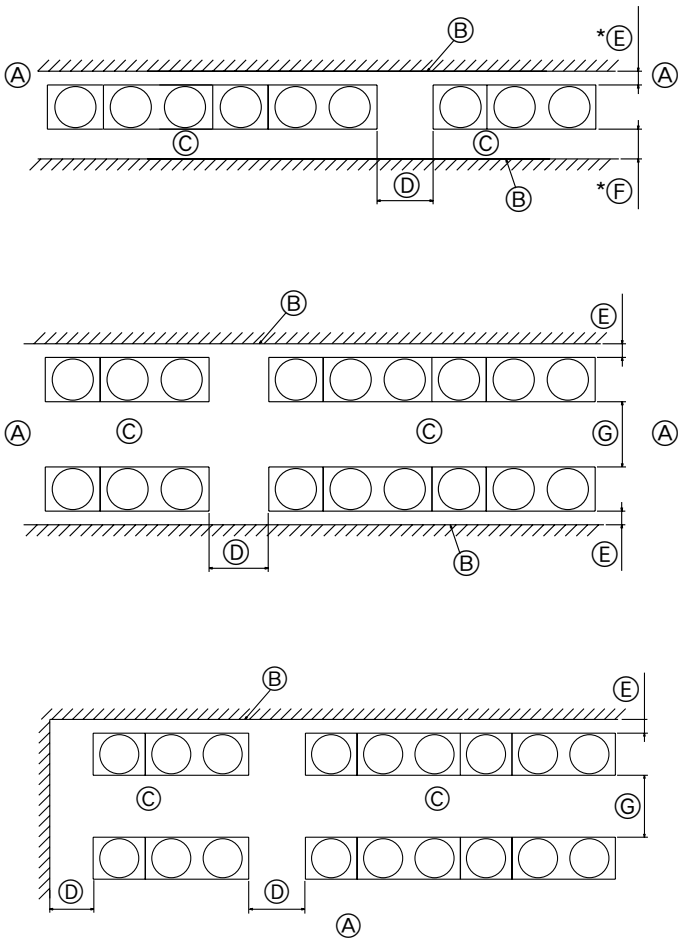
Ⓐ (Must be open)
Ⓑ Wall height (H)
Ⓒ Front
Ⓓ 1000 mm or more
Ⓔ L_2 mm or more
Ⓕ L_1 mm or more
Ⓖ 900 mm or more
Ⓗ No restrictions on wall height

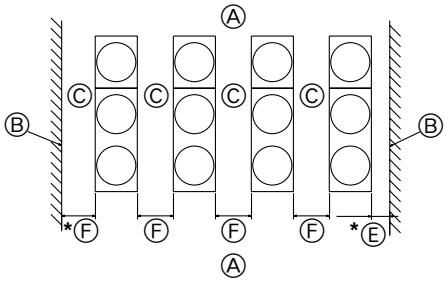
	L_1	L_2
PU(H)Y-P200·250	450mm	450mm
others	450mm	250mm

Note:

- **Open in the two directions**
- **In case wall height (H) exceeds overall height of unit, add "h" dimension (h=wall height <H> – overall height of unit) to * marked dimension.**
- **If there is a wall at both the front and the rear of the unit, install up to three units consecutively in the side direction and provide a space of 1000 mm or more as inlet space/passage space for each three units.**

< Model : 600·650·700·750>





Ⓐ (Must be open)
Ⓑ Wall height (H)
Ⓒ Front
Ⓓ 1000 mm or more
Ⓔ L_2 mm or more
Ⓕ L_1 mm or more
Ⓖ 900 mm or more
Ⓗ No restrictions on wall height

	L_1	L_2
PU(H)Y-P200·250	450mm	450mm
others	450mm	250mm

Note:

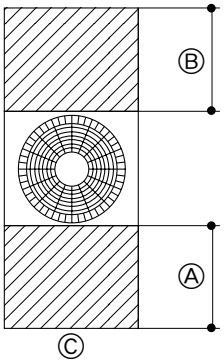
- **Open in the two directions**
- **In case wall height (H) exceeds overall height of unit, add "h" dimension (h=wall height <H> – overall height of unit) to *marked dimension.**
- **If there is a wall at both the front and the rear of the unit, install up to three units consecutively in the side direction and provide a space of 1000 mm or more as inlet space/passage space for each three units.**

③ PURY

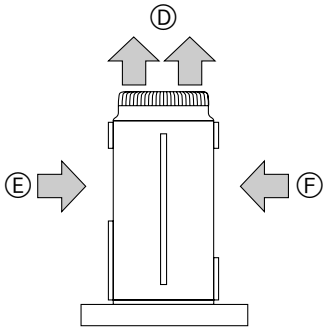
(1) Individual installation

Basic space required

A space of at least 250 mm is necessary at the back for inlet air. Taking servicing, etc. from the rear into account, a space of about 450 mm should be provided, the same as at the front.



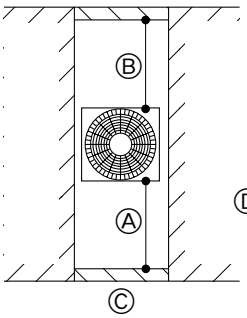
<Top view>

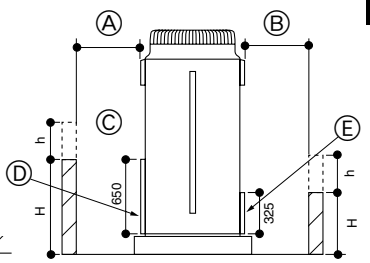


<Side view>

Ⓐ 450 mm or more
Ⓑ 450 mm or more
Ⓒ Front (outside of machine room)
Ⓓ Top discharge (open in principle)
Ⓔ Front inlet (open in principle)
Ⓕ Rear inlet (open in principle)

When unit is surrounded by walls





<Side view>

Ⓐ L_1 or more
Ⓑ L_2 or more
Ⓒ Front
Ⓓ Front panel
Ⓔ Rear panel

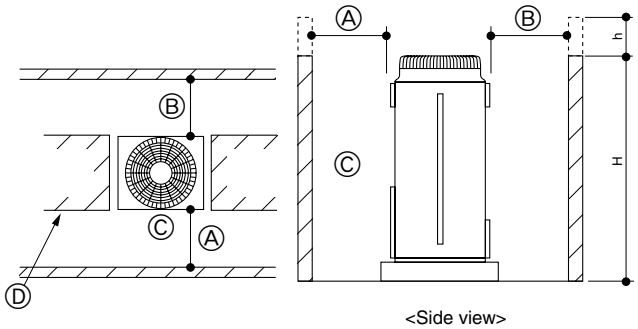
Note:

- **Wall heights (H) of the front and the back sides shall be within height of front panel and rear panel.**
- **If the panel height is exceeded, add the "h" dimension of the figure above to L_1 and L_2 in the table above.**

L_1	L_2
450	450

Example: When h is 100
The L_1 dimension becomes 450+100 = 550 mm.

When inlet air enters from right and left sides of unit



<Side view>

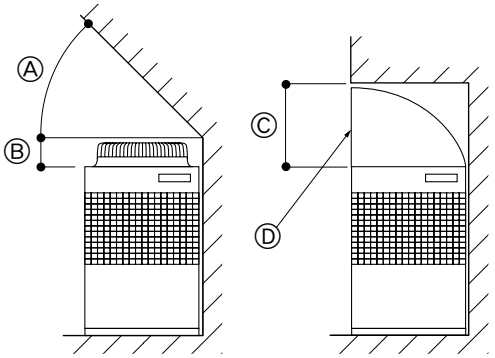
Ⓐ L_1 or more
Ⓑ L_2 or more
Ⓒ Front
Ⓓ No restrictions on wall height (left and right)

Note:

- **Wall heights (H) of the front and the back sides shall be within overall height of unit.**
- **When the total height is exceeded, add the "h" dimension of the figure above to L_1 and L_2 in the table above.**

L_1	L_2
450	450

When there is an obstruction above the unit

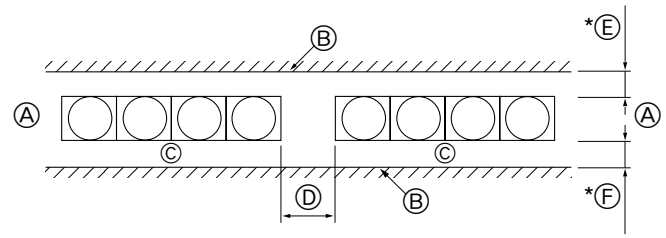


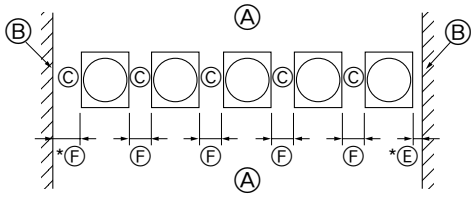
When there is little space up to an obstruction

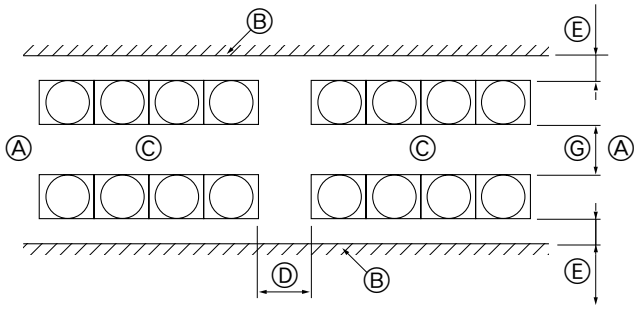
Ⓐ 45° or more
Ⓑ 300 mm or more
Ⓒ 1000 mm or more
Ⓓ Air outlet guide (Procured at the site)

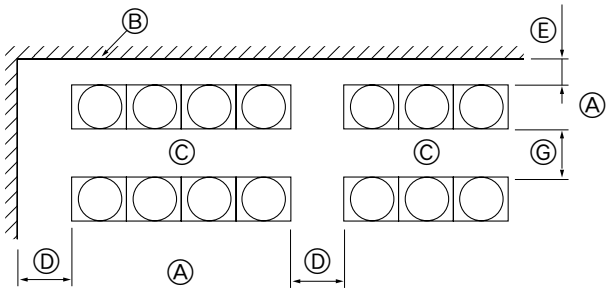
(2) Collective installation and continuous installation

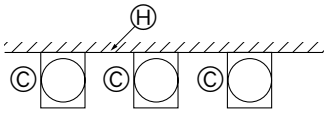
Space required for collective installation and continuous installation:When installing several units, leave the space between each block as shown below considering passage for air and people.











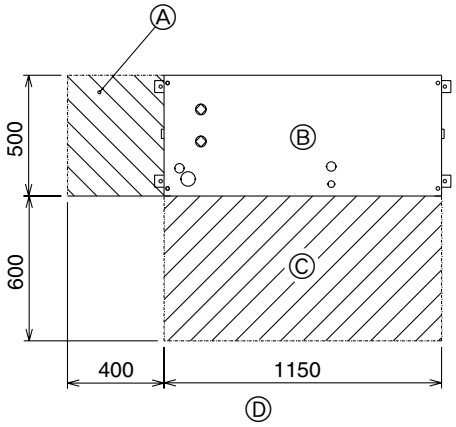
Ⓐ (Must be open)
Ⓑ Wall height (H)
Ⓒ Front
Ⓓ 1000 mm or more
Ⓔ 450 mm or more
Ⓕ 450 mm or more
Ⓖ 900 mm or more
Ⓗ No restrictions on wall height

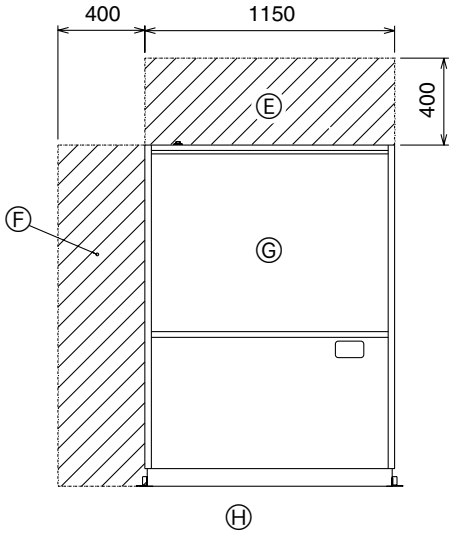
Note:

- **Open in the two directions**
- **In case wall height (H) exceeds overall height of unit, add "h" dimension (h=wall height <H> – overall height of unit) to *marked dimension.**
- **If there is a wall at both the front and the rear of the unit, install up to three units consecutively in the side direction and provide a space of 1000 mm or more as inlet space/passage space for each three units.**

④ PQRY

• Please allow for the following service spaces after installation.
(All servicing can be performed from the front of the unit)





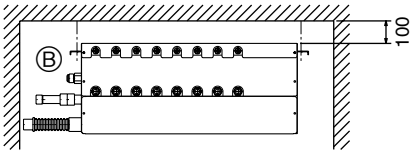
Ⓐ Piping space (for left piping)
Ⓑ Heat source unit
Ⓒ Service space (front side)
Ⓓ (Top view)

Ⓔ Piping space (for top piping)
Ⓕ Piping space (for left piping)
Ⓖ Heat source unit
Ⓗ (Front view)

⑤ BC controller

1. For hanging from the ceiling

<Front view> (when hanging to install)

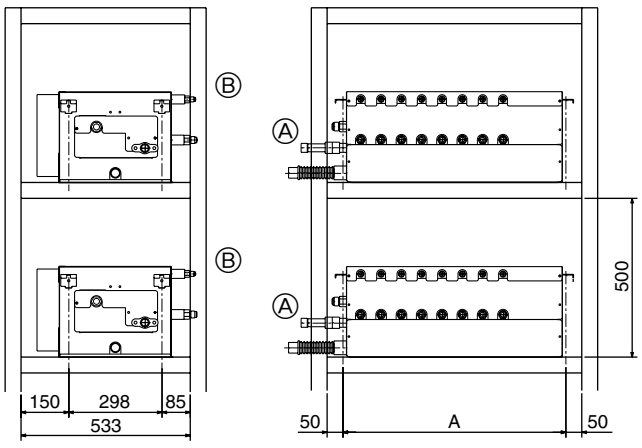


*1 Dimensions with which pipe connection can be handled at site

Model name	A
CMB-P104V-E	702
CMB-P105V-E	702
CMB-P106V-E	702
CMB-P108V-E	702
CMB-P1010V-E	702
CMB-P1013V-E	1152
CMB-P1016V-E	1152

2. When stacking on a rack

(This is a reference view showing the least installation space.)

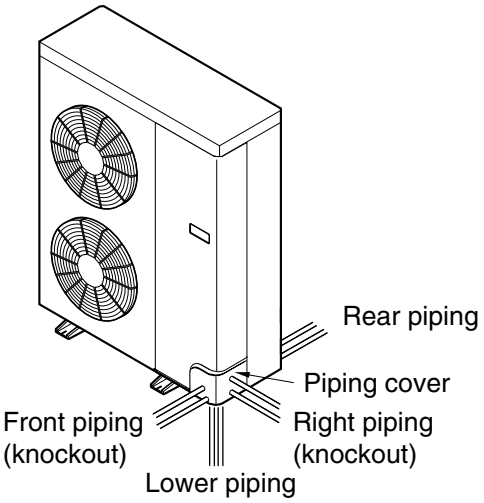


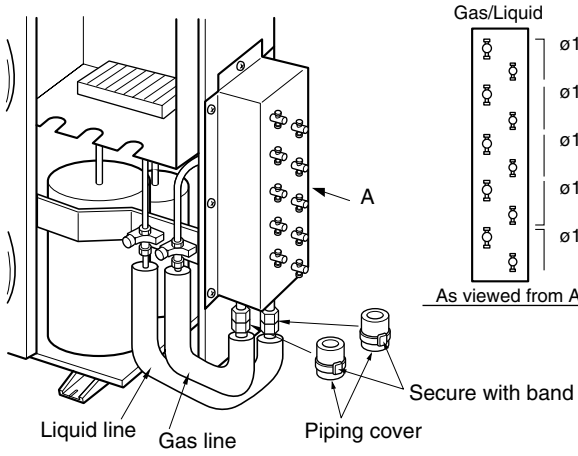
Model name	A
CMB-P104V-E	702
CMB-P105V-E	702
CMB-P106V-E	702
CMB-P108V-E	702
CMB-P1010V-E	702
CMB-P1013V-E	1152
CMB-P1016V-E	1152

Ⓐ On the side of outdoor unit piping
Ⓑ On the side of indoor unit piping

2-7-3 Connecting direction for refrigerant piping

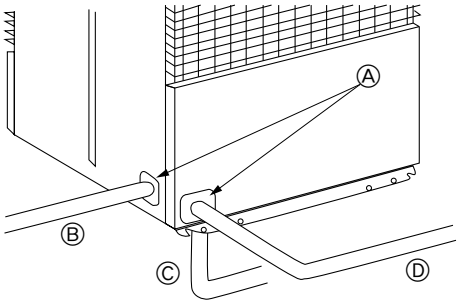
① PUMY



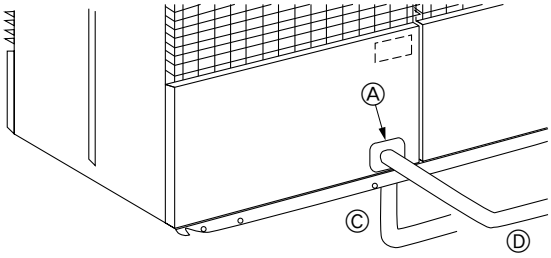


② PUHY. PURY

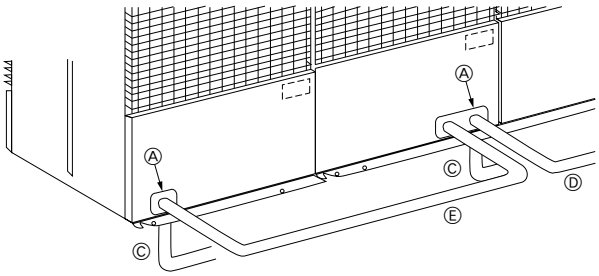
<Model : 200·250·315>



<Model : 400·500>



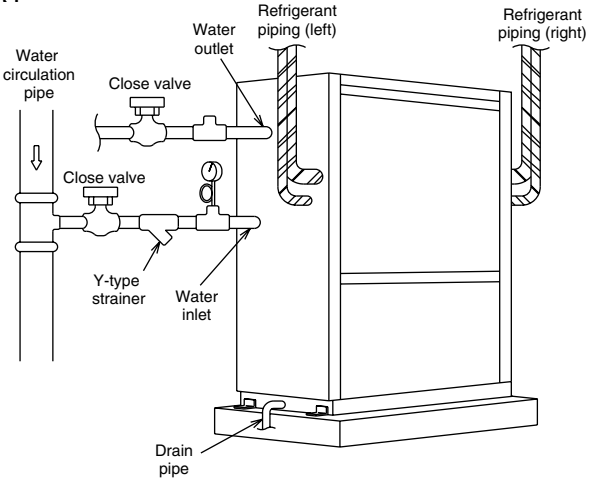
<Model : 600·650·700·750>



Ⓐ Knock-out hole
Ⓑ Left piping
Ⓒ Bottom piping
Ⓓ Front piping
Ⓔ Connect piping (to constant capacity unit)

Note:
In the case of bottom piping, build a 100 mm or higher foundation so that piping will go through the bottom of the unit.

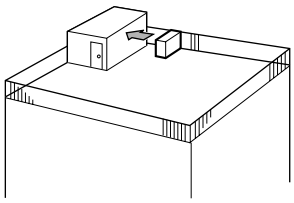
③ PQRY



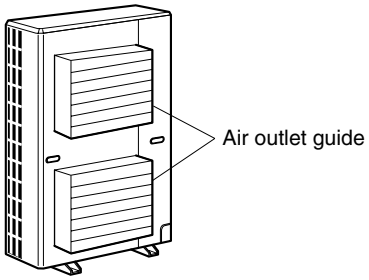
2-7-4 Caution for snow and seasonal wind

① PUMY

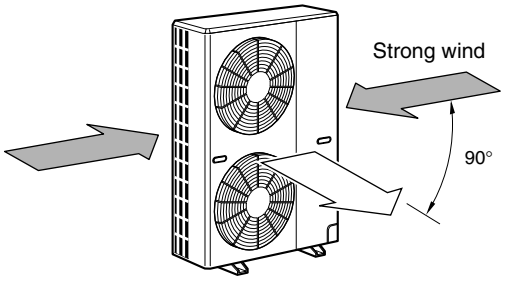
Precautions
Installation on a rooftop or other windy places
When installing the unit on a rooftop or other location unprotected from the wind, situate the unit's air outlet so that it is not directly exposed to strong winds. Strong wind entering the air outlet may impede the normal airflow and cause malfunctions.
The following shows three examples of precautions against strong winds.



Face the outlet toward any available wall at least 50 cm away from the wall.



Install an optional air outlet guide and if the unit is installed at a place where the powerful blast of a typhoon, etc. comes directly into the air outlet.



Position the unit so that the air outlet blows perpendicularly to the seasonal wind direction, if possible.

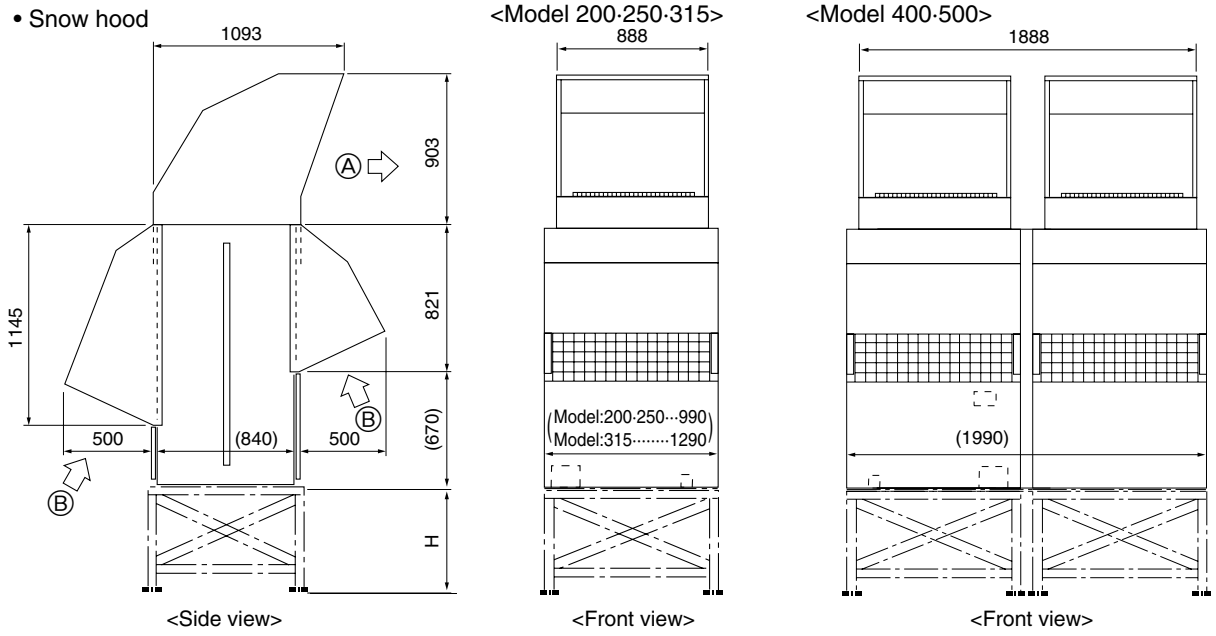
② PU(H)Y, PURY

In cold and/or snowy areas, sufficient countermeasures to wind and snow damages should be taken for operating unit in normal and good condition in winter time. Even in the other areas, full consideration is required for installation of unit in order to prevent abnormal operations caused by wind or snow. **When rain and snow directly fall on unit in the case of air-conditioning operations in 10 or less degrees centigrade outdoor air, mount inlet and outlet ducts on unit for assuring stable operations.**

(1) Snow and wind

■ Prevention of wind and snow damages in cold or snowy areas:
Refer to the figure of snow hood shown below:

• Snow hood



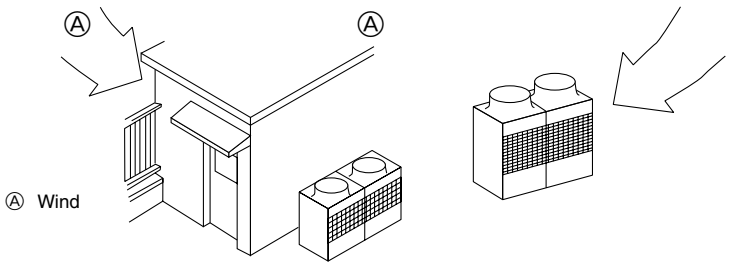
Ⓐ Outlet Ⓑ Inlet

Note:

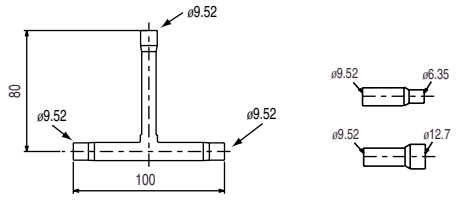
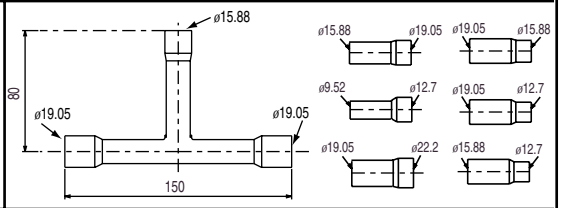
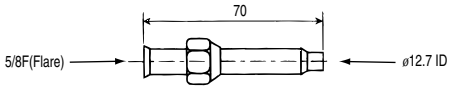
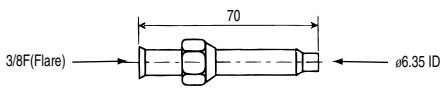
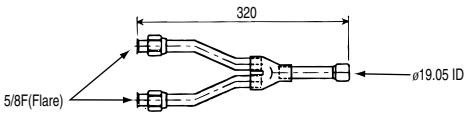
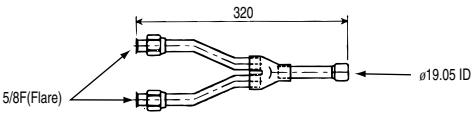
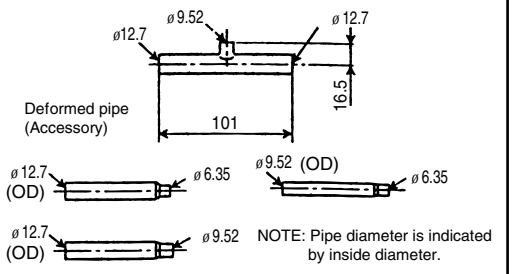
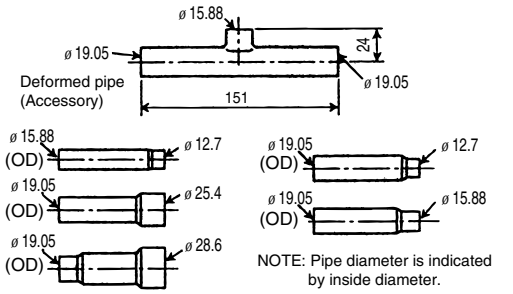
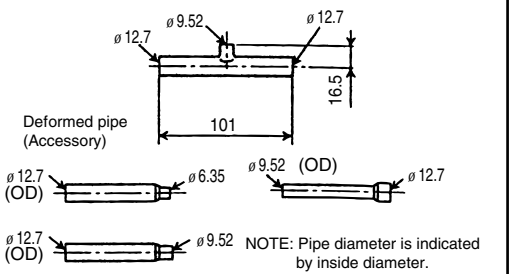
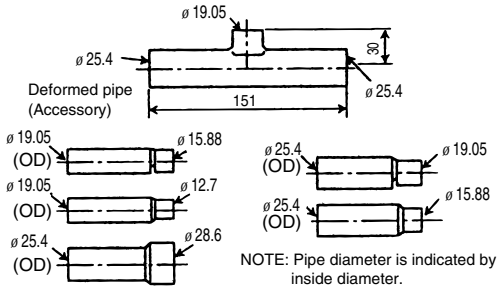
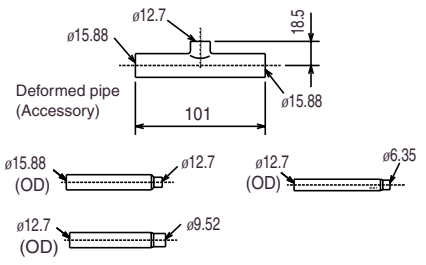
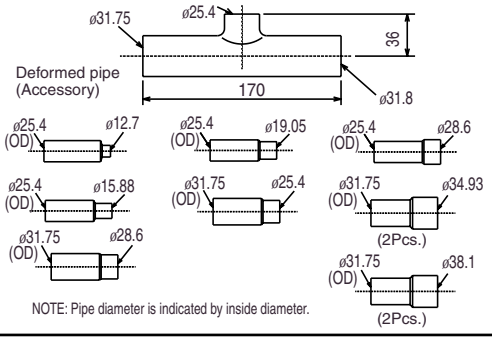
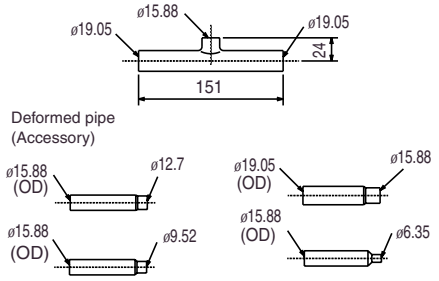
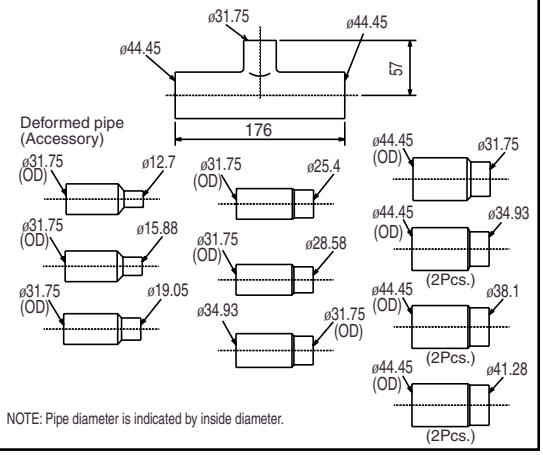
1. **Height of frame base for snow damage prevention (H) shall be twice as high as expected snowfall. Width of frame base shall not exceed that of the unit. The frame base shall be made of angle steel, etc., and designed so that snow and wind slip through the structure. (If frame base is too wide, snow will be accumulated on it.)**
2. **Install unit so that wind will not directly lash against openings of inlet and outlet ducts.**
3. **Build frame base at customer referring to this figure.**
   Material : Galvanized steel plate 1.2T
   Painting : Overall painting with polyester powder
   Color : Munsell 5Y8/1 (same as that of unit)
4. **When the unit is used in a cold region and the heating operation is continuously performed for a long time when the outside air temperature is below freezing, install a heater to the unit base or take other appropriate measures to prevent water from freezing on the base.**

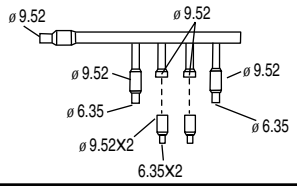
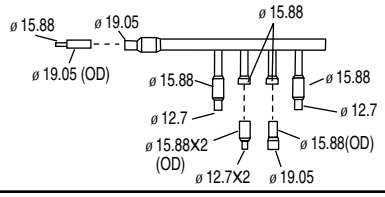
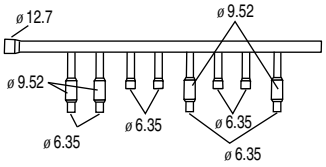
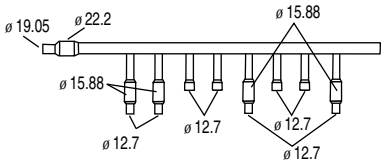
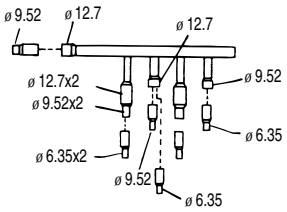
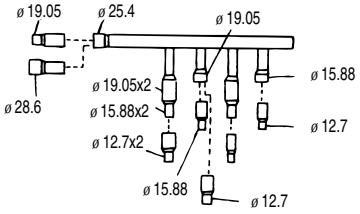
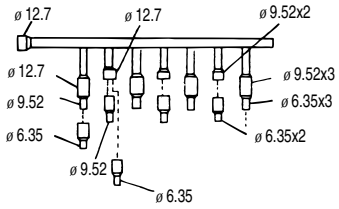
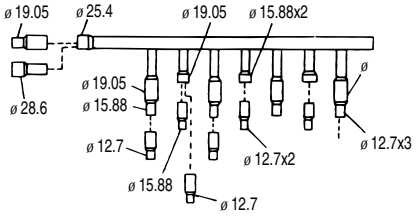
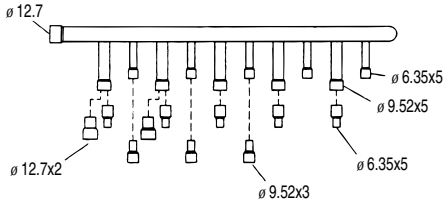
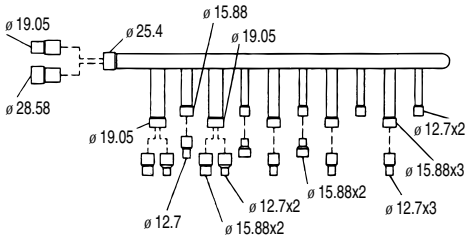
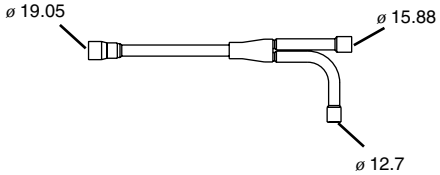
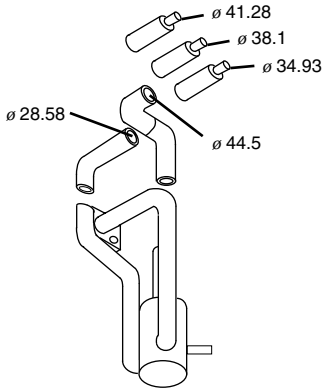
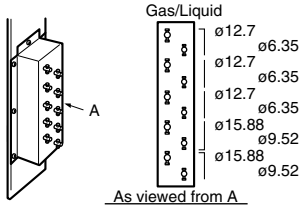
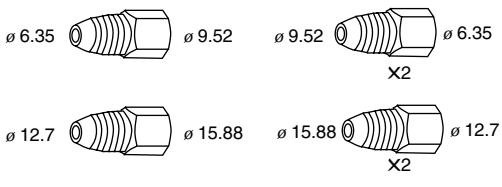
(2) Countermeasure to wind

Referring to the figure shown below, take appropriate measures which will suit the actual situation of the place for installation.



2-8 Joint / Header / Reduction

	Liquid side	Gus side
CMY-Y62C-E		
Reduction Use flare nut attached to BC controller		
CMY-R160-F		
CMY-Y102S-F		
CMY-Y102L-F		
CMY-Y202-F		
CMY-Y302-F		

	Liquid side	Gus side
CMY-Y64-C		
CMY-Y68		
CMY-Y104-E		
CMY-Y107-E		
CMY-Y1010-E		
CMC-30A		
CMY-S65 (PUMY only)		

OD:Outside Diameter

3. Caution For Refrigerant Leak

The installer and system specialist shall secure safety against leakage according to local regulations or standards. The following standards may be applicable if local regurations are not available.

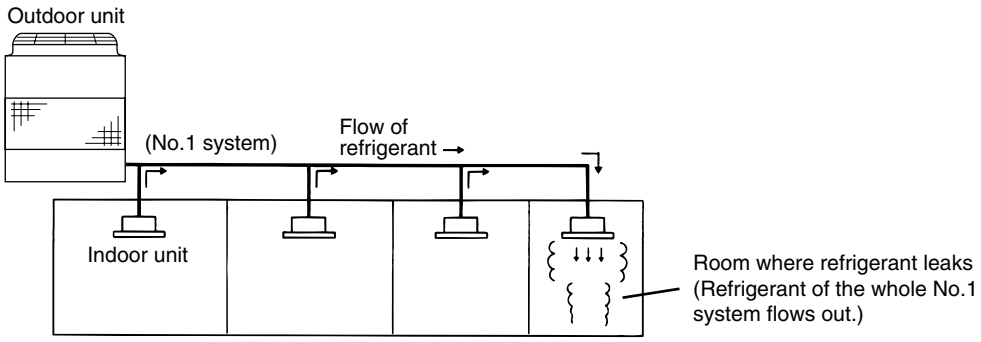
3-1 Introduction

In addition to City Multi almost all air conditioners utilize R22 or R407C as refrigerant. Though the R22, R407C is harmless and incombustible in itself , the room to equip the air conditioner should be large to such an extent that the refrigerant gas will not exceed the limiting concentration even if the refrigerant gas leaks

• Limiting concentration

Limiting concentration is the limit of Freon gas concentration where immediate measures can be taken without hurting human body when refrigerant leaks in the air. The limiting concentration shall be described in the unit of kg/m^3 (Freon gas weight in /m^3 air) for facilitating calculation.

Limiting concentration: 0.3kg/m^3(R22), 0.31kg/m^3(R407C) **(ISO5149, EN378-1)**


Outdoor unit
(No.1 system)
Flow of refrigerant
Indoor unit
Room where refrigerant leaks (Refrigerant of the whole No.1 system flows out.)

3-2 Checking procedure of limiting concentration

Check limiting concentration following step ①~④, and take appropriate measure depending on the situation.

① Calculate amount of all the replenished refrigerant (kg) per each refrigerant system.

Amount of replenished refrigerant per one outdoor unit system + Amount of additional replenished refrigerant = Total amount of replenished refrigerant in refrigerant facility (kg)

Amount of replenished refrigerant at factory shipment

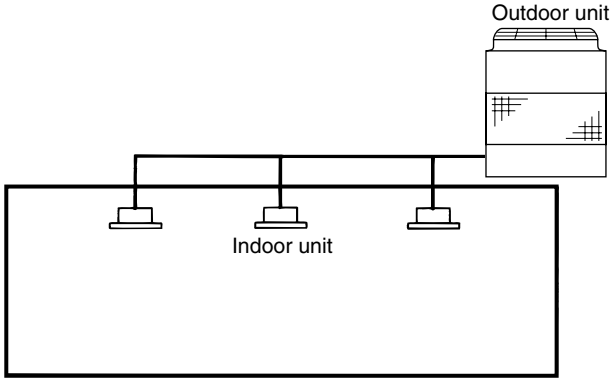
Amount of additionally replenished refrigerant depending on piping length or piping diameter at customer

Note : In case one refrigerant facility is divided into 2 or more refrigerant systems and each system is independent, amount of replenished refrigerant of each system shall be adopted.

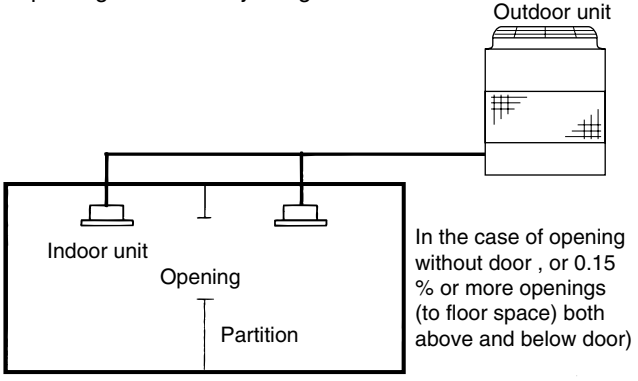
② Calculate minimum room capacity.

Calculate room capacity by regarding □ portion as one room or the smaller room.

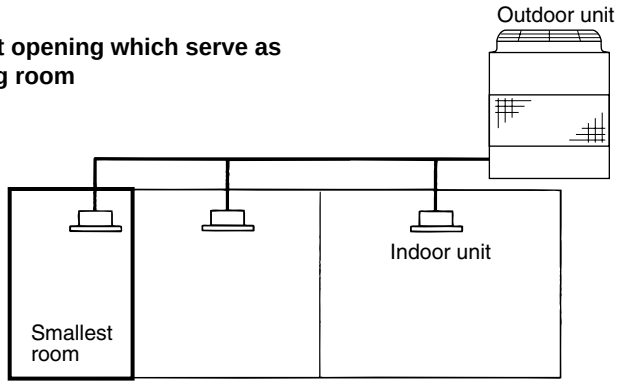
(a) Without partition



(b) With partition and with opening which serve as passage of air to adjoining room


Outdoor unit
Indoor unit
Opening
Partition
In the case of opening without door , or 0.15 % or more openings (to floor space) both above and below door)

(c) With partition and without opening which serve as passage of air to adjoining room



③ Calculate refrigerant concentration with the results of ① and ②

$$\frac{\text{Total amount of replenished refrigerant in refrigerant facility (kg)}}{\text{Capacity of smallest room where indoor unit is installed (m3)}} = \text{Refrigerant concentration (kg/m}^3\text{)}$$

(R22 or R407C)

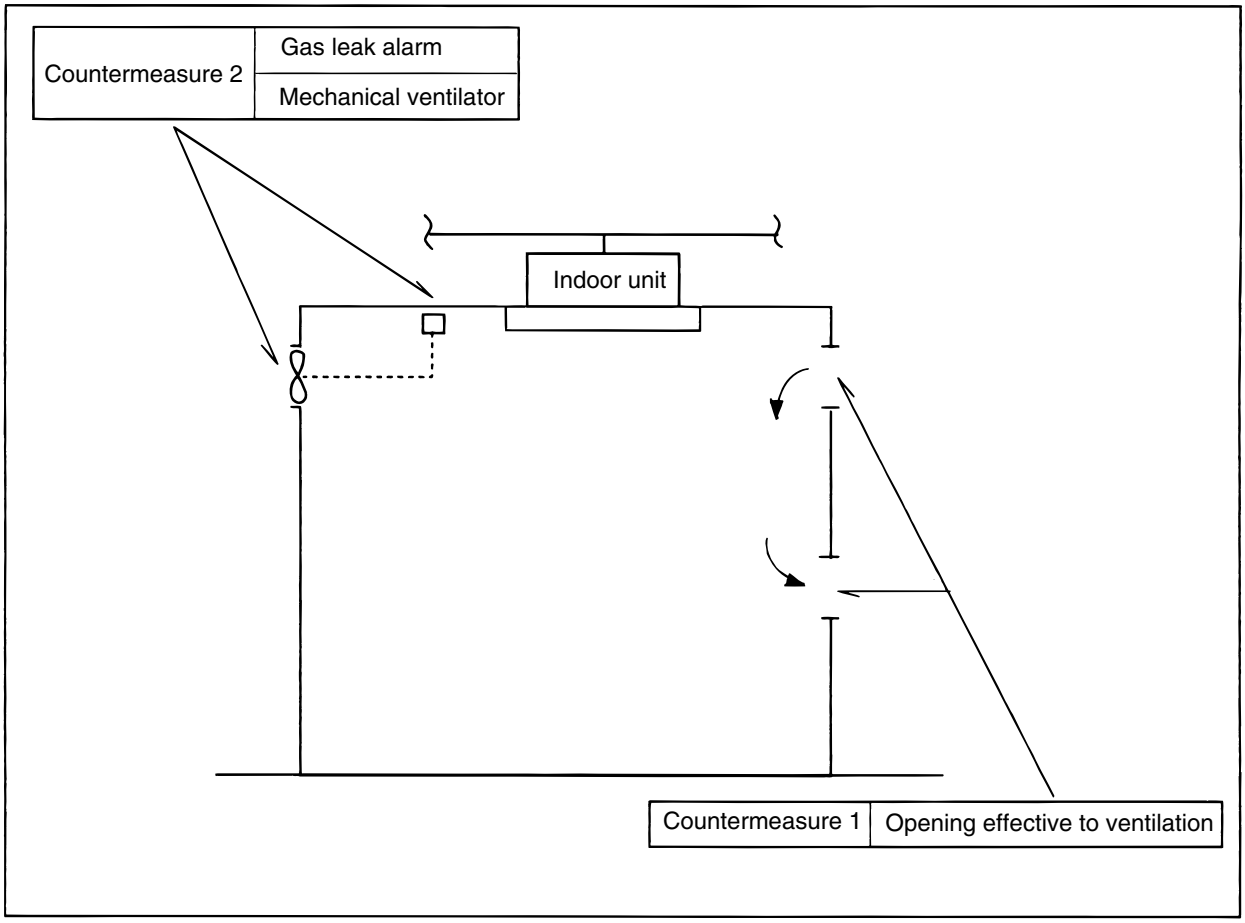
In case the result of calculation exceeds the limiting concentration, perform the same calculations by shifting to the second smallest, and the third smallest rooms until at last the result is below the limiting concentration.

④ **In case limiting concentration is exceed**

When limiting concentration is exceeded, change original plan or take one of the countermeasures shown below:

• Countermeasure 1
Provide opening for ventilation.
Provide 0.15% or more opening to floor space both above and below door, or provide opening without door.

• Countermeasure 2
Provide gas leak alarm linked with mechanical ventilator.



Pay a special attention to the place, such as a basement, etc. where refrigerant can stay, since refrigerant is heavier than air.

MITSUBISHI ELECTRIC

CITY MULTI AIR CONDITIONERS

DATA BOOK 2001

CITY MULTI

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